**Geospatial Metadata Specifications**

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| **Section** | **Category** | **Metadata required** | **GA Metadata Profile** | **ISO/ANZLIC Obligation** | **ISO 19115-3 Item Path** |
| Overview | Item Description | Title | Match | Mandatory | [MD\_Metadata.identificationInfo>MD\_Identification.citation> CI\_Citation.title](https://icsm-au.github.io/metadata-working-group/defs/ResourceCitation.html) |
| Metadata | Thumbnail Name | GA current practice | Mandatory | [MD\_Metadata.identificationInfo>MD\_Identification.graphicOverview> MD\_BrowseGraphic.fileName](https://icsm-au.github.io/metadata-working-group/defs/BrowseGraphic) |
| Thumbnail Link | GA current practice | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.graphicOverview> MD\_BrowseGraphic.linkage](https://icsm-au.github.io/metadata-working-group/defs/BrowseGraphic) |
| Tags | Match | Mandatory | [MD\_Metadata.identificationInfo>MD\_Identification.descriptiveKeywords> MD\_Keywords.keyword](https://icsm-au.github.io/metadata-working-group/defs/Keywords.html) |
| Summary (purpose) | GA current practice | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.purpose](https://icsm-au.github.io/metadata-working-group/defs/class-MD_Identification.html) |
| Description (abstract) | Match | Mandatory | [MD\_Metadata.identificationInfo>MD\_Identification.abstract](https://icsm-au.github.io/metadata-working-group/defs/class-MD_Identification.html) |
| URL links to dataset to be included in Description | Match? | Mandatory | [MD\_Metadata.identificationInfo>MD\_Identification.citation>CI\_Citation.identifier> MD\_Identifier.code](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Citation.html) |
| URL links to metadata statement to be included in Description | Match | Mandatory | [MD\_Metadata.metadataLinkage>CI\_OnlineResource.linkage](https://icsm-au.github.io/metadata-working-group/defs/MetadataLinkage) |
| Credits | GA current practice | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.pointOfContact>CI\_Responsibility.party>CI\_Organisation.name;](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility) role = ‘custodian’ |
| Use Limitation for the asset | GA current practice | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints>MD\_Constraints.useLimitations](https://icsm-au.github.io/metadata-working-group/defs/class-MD_LegalConstraints) |
| Scale Range | ? | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.spatialResolution>MD\_Resolution.equivalentScale](https://icsm-au.github.io/metadata-working-group/defs/class-MD_Identification.html) |
| Bounding Box (W/E/S/N) | Match | Conditional | [MD\_Metadata.identificationInfo>MD\_Identification.extent> EX\_Extent.geographicElement>EX\_GeographicBoundingBox](https://openwork-nz.github.io/mdwg/defs/ExtentGeographicDescription) |
| Topics & Keywords | Topic Category | Match | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.topicCategory> MD\_TopicCategoryCode](https://icsm-au.github.io/metadata-working-group/defs/TopicCategory) |
| Content Type | Match | Conditional | [MD\_Metadata.metadataScope>MD\_MetadataScope.resourceScope>MD\_ScopeCode.name](https://icsm-au.github.io/metadata-working-group/defs/MetadataScope) |
| Citation | \*Title (from above) | Match | Mandatory | [MD\_Metadata.identificationInfo>MD\_Identification.citation> CI\_Citation.title](https://icsm-au.github.io/metadata-working-group/defs/ResourceCitation.html) |
| Alternative Title | ? | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.citation> CI\_Citation.alternateTitle](https://icsm-au.github.io/metadata-working-group/defs/ResourceCitation.html) |
| Publisher | Match | Conditional | [MD\_Metadata.identificationInfo>MD\_Identification.citation> CI\_Citation.citedResponsibleParty>CI\_Responsibility.party>CI\_Organisation.name; role = ‘publisher’](https://icsm-au.github.io/metadata-working-group/defs/ResourceCitation.html) |
| Date Published | GA current practice | Conditional | [MD\_Metadata.dateInfo>CI\_Date; dateType = ‘publication’](https://icsm-au.github.io/metadata-working-group/defs/ResourceCitation.html) |
| Date created | Match | Conditional | [MD\_Metadata.dateInfo>CI\_Date; dateType = ‘creation’](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Date) |
| Date Revised | GA current practice | Conditional | [MD\_Metadata.dateInfo>CI\_Date; dateType = ‘revision’](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Date) |
| Citation Contacts | Contact Organisation | Match | Mandatory | [MD\_Metadata.contact>CI\_Responsibility.party>CI\_Organisation.name](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility.html) |
| Contact Role | X | Optional | [MD\_Metadata.contact>CI\_Responsibility.party>CI\_Organisation.individual>CI\_Individual.positionName](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility.html) |
| Contact email | Match | Optional | [MD\_Metadata.contact>CI\_Responsibility.party>CI\_Organisation.contact>CI\_Contact.address<CI\_Address.electronicMailAddress](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility.html) |
| Locales | Language | Match | Optional | [MD\_Metadata.defaultLocale>PT\_Locale.language](https://openwork-nz.github.io/mdwg/defs/class-PT_Locale.html) |
| Country | ? | Optional | [MD\_Metadata.defaultLocale>PT\_Locale.country](https://openwork-nz.github.io/mdwg/defs/class-PT_Locale.html) |
| Details | Metadata File Identifier | Match | Mandatory | [MD\_Metadata.metadataIdentifier>MD\_Identifier.code](https://icsm-au.github.io/metadata-working-group/defs/MetadataIdentifier) |
| Parent Title | Match | Conditional | [MD\_Metadata.parentMetadata>CI\_Citation.title](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Citation.html) |
| Parent Identifier | Match | Conditional | [MD\_Metadata.parentMetadata>CI\_Citation.identifier](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Citation.html) |
| Date Stamp | Match | Mandatory | [MD\_Metadata.dateInfo>CI\_Date; dateType = ‘creation’](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Date) |
| Language | Match | Optional | [MD\_Metadata.defaultLocale>PT\_Locale.language](https://openwork-nz.github.io/mdwg/defs/class-PT_Locale.html)  (Default Eng) |
| Character Set | Match | Optional | [MD\_Metadata.defaultLocale>PT\_Locale.characterEncoding](https://openwork-nz.github.io/mdwg/defs/class-PT_Locale.html)  (Default is UTF-8) |
| Contacts | Contact Organisation | Match | Mandatory | [MD\_Metadata.contact>CI\_Responsibility.party>CI\_Organisation.name](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility.html) |
| Contact Role | Match | Optional | [MD\_Metadata.contact>CI\_Responsibility.party>CI\_Organisation.individual>CI\_Individual.positionName](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility.html) |
| Contact email | Match | Optional | [MD\_Metadata.contact>CI\_Responsibility.party>CI\_Organisation.contact>CI\_Contact.address<CI\_Address.electronicMailAddress](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility.html) |
| Maintenance | Update Frequency | ? | Optional | [MD\_Metadata.metadataMaintenance>MD\_MaintenanceInformation.maintenanceAndUpdateFrequency](https://wiki.esipfed.org/File:MD_MaintenanceInformation.png) |
| Constraints | Security Constraints | Match | Optional | [MD\_Metadata.metadataConstraints>MD\_SecurityConstraints.classification](https://icsm-au.github.io/metadata-working-group/defs/class-MD_SecurityConstraints.html) |
| Legal Access Constraints | Match? | Optional | [MD\_Metadata.metadataConstraints>MD\_LegalConstraints.accessConstraints](https://icsm-au.github.io/metadata-working-group/defs/class-MD_LegalConstraints) (e.g. licence) |
| Legal Use Constraints | Match? | Optional | [MD\_Metadata.metadataConstraints>MD\_LegalConstraints.useConstraints](https://icsm-au.github.io/metadata-working-group/defs/class-MD_LegalConstraints) (e.g.licence) (Check re other constraints) |
| Legal Reference Constraints | Match? | Optional | [MD\_Metadata.metadataConstraints>MD\_LegalConstraints.reference](https://icsm-au.github.io/metadata-working-group/defs/class-MD_LegalConstraints) (e.g. CCBY 4.0 and a document or link to it) |
| Resource | Details | Credit | Match? | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints.responsibleParty>CI\_Responsibility.party](https://icsm-au.github.io/metadata-working-group/defs/class-MD_Identification.html) |
| Language | Match | Optional | [MD\_Metadata.identificationInfo>MD\_DataIdentification.defaultLocale> PT\_Locale.language](https://openwork-nz.github.io/mdwg/defs/class-PT_Locale.html) |
| Character Set | Match | Optional | [MD\_Metadata.identificationInfo>MD\_DataIdentification.defaultLocale> PT\_Locale.characterEncoding](https://openwork-nz.github.io/mdwg/defs/class-PT_Locale.html) |
| Processing Environment | X | Optional | [MD\_Metadata.identificationInfo>MD\_DataIdentification.environmentDescription](https://icsm-au.github.io/metadata-working-group/defs/class-MD_DataIdentification.html) |
| Status | Match | Optional | MD\_Metadata.identificationInfo>MD\_DataIdentification.status>MD\_ProgressCode |
| Disposal of asset date | X | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.extent> EX\_Extent.temporalElement>EX\_TemporalExtent.extent>TimeInstant.timePosition](https://icsm-au.github.io/metadata-working-group/defs/TemporalExtents); |
| Disposal of asset note | X | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints>MD\_SecurityConstraints.releasability>MD\_Releasability.statement](https://icsm-au.github.io/metadata-working-group/defs/ResourceOtherConstraints.html) |
| Extent | Bounding Box (W/E/S/N) | Match | Conditional | [MD\_Metadata.identificationInfo>MD\_Identification.extent> EX\_Extent.geographicElement>EX\_GeographicBoundingBox](https://openwork-nz.github.io/mdwg/defs/ExtentGeographicDescription) |
| Checkbox: Extent contains the resource | X | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.extent> EX\_Extent.condition](https://openwork-nz.github.io/mdwg/defs/ExtentGeographicDescription) |
| Temporal Period Extent (option) | X | Conditional | [MD\_Metadata.identificationInfo>MD\_Identification.extent> EX\_Extent.temporalElement>EX\_TemporalExtent.extent>TimePeriod.duration](https://icsm-au.github.io/metadata-working-group/defs/TemporalExtents) |
| Temporal Period Begin Date/Time | Match | Conditional | [MD\_Metadata.identificationInfo>MD\_Identification.extent> EX\_Extent.temporalElement>EX\_TemporalExtent.extent>TimePeriod.beginPosition](https://icsm-au.github.io/metadata-working-group/defs/TemporalExtents) |
| Temporal Period End Date/Time | Match | Conditional | [MD\_Metadata.identificationInfo>MD\_Identification.extent> EX\_Extent.temporalElement>EX\_TemporalExtent.extent>TimePeriod.endPosition](https://icsm-au.github.io/metadata-working-group/defs/TemporalExtents) |
| Temporal Instant Date/Time | X | Conditional | [MD\_Metadata.identificationInfo>MD\_Identification.extent> EX\_Extent.temporalElement>EX\_TemporalExtent.extent>TimeInstant.timePosition](https://icsm-au.github.io/metadata-working-group/defs/TemporalExtents) |
| Points of Contact | Contact Organisation | Match | Conditional | [MD\_Metadata.identificationInfo>MD\_Identification.pointOfContact> CI\_Responsibility.party>CI\_Organisation.name](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility) |
| Contact Role | Match | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.pointOfContact>CI\_Responsibility.party>CI\_Individual.positionName](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility) |
| Contact email | Match | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.pointOfContact>CI\_Responsibility.party>CI\_Organisation.contactinfo>CI\_Contact.electronicMailAddress](https://icsm-au.github.io/metadata-working-group/defs/class-CI_Responsibility) |
| Maintenance | Update Frequency | Match | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceMaintenance>MD\_MaintenanceInformation.maintenanceAndUpdate Frequency](https://openwork-nz.github.io/mdwg/defs/class-MD_Identification.html) |
| Constraints | General Constraints - Use Limitation | ? | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints> MD\_Constraints.useLimitation](https://icsm-au.github.io/metadata-working-group/defs/class-MD_LegalConstraints) |
| Security constraint | Match | Mandatory | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints>MD\_SecurityConstraints.classification](https://icsm-au.github.io/metadata-working-group/defs/ResourceOtherConstraints.html) |
| Releasability | X | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints>MD\_SecurityConstraints.releasability>MD\_Releasability.statement](https://icsm-au.github.io/metadata-working-group/defs/ResourceOtherConstraints.html) |
| Legal Access Constraints | Match | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints>MD\_LegalConstraints.accessConstraints](https://icsm-au.github.io/metadata-working-group/defs/ResourceOtherConstraints.html) (e.g license) |
| Legal Type Constraints | Match | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints>MD\_LegalConstraints.useConstraints](https://icsm-au.github.io/metadata-working-group/defs/ResourceOtherConstraints.html) (e.g license) |
| Legal Reference Constraints | Match | Optional | [MD\_Metadata.identificationInfo>MD\_Identification.resourceConstraints>MD\_LegalConstraints.reference](https://icsm-au.github.io/metadata-working-group/defs/ResourceOtherConstraints.html) (e.g. CCBY 4.0 and a document or link to it) |
| Reference Systems  (Spatial horizontal) | Reference System Code |  | Conditional | [MD\_Metadata.referenceSisteInfo>MD\_ReferenceSystem.referenceSystemIdentifier>MD\_Identifier.code](https://icsm-au.github.io/metadata-working-group/defs/SpatialReferenceSystem.html) |
| Reference System Code Space |  | Optional | [MD\_Metadata.referenceSisteInfo>MD\_ReferenceSystem.referenceSystemIdentifier>MD\_Identifier.codeSpace](https://icsm-au.github.io/metadata-working-group/defs/SpatialReferenceSystem.html) |
| Reference System Version |  | Optional | [MD\_Metadata.referenceSisteInfo>MD\_ReferenceSystem.referenceSystemIdentifier>MD\_Identifier.version](https://icsm-au.github.io/metadata-working-group/defs/SpatialReferenceSystem.html) |
| Reference Systems  (Spatial vertical) | Reference System Code |  | Conditional | [MD\_Metadata.referenceSisteInfo>MD\_ReferenceSystem.referenceSystemIdentifier>MD\_Identifier.code](https://icsm-au.github.io/metadata-working-group/defs/SpatialReferenceSystem.html) |
| Reference System Code Space |  | Optional | [MD\_Metadata.referenceSisteInfo>MD\_ReferenceSystem.referenceSystemIdentifier>MD\_Identifier.codeSpace](https://icsm-au.github.io/metadata-working-group/defs/SpatialReferenceSystem.html) |
| Reference System Version |  | Optional | [MD\_Metadata.referenceSisteInfo>MD\_ReferenceSystem.referenceSystemIdentifier>MD\_Identifier.version](https://icsm-au.github.io/metadata-working-group/defs/SpatialReferenceSystem.html) |
| Quality | Scope Level |  | Optional | [MD\_Metadata.resourceLineage>LI\_Lineage.scope](https://icsm-au.github.io/metadata-working-group/defs/ResourceLineage) |
| Level Description |  | Optional | [MD\_Metadata.resourceLineage>LI\_Lineage.additionalDocumentation](https://icsm-au.github.io/metadata-working-group/defs/ResourceLineage) |
| Lineage | Lineage Statement |  | Mandatory | [MD\_Metadata.resourceLineage>LI\_Lineage.statement](https://icsm-au.github.io/metadata-working-group/defs/ResourceLineage) |
| Source |  | Conditional | [MD\_Metadata.resourceLineage>LI\_Lineage.source>LI\_Source.description](https://icsm-au.github.io/metadata-working-group/defs/ResourceLineage) |
| Resource Format | Resource Format |  | Mandatory | [MD\_Metadata.identificationInfo>MD\_DataIdentification.resourceFormat>MD\_Format](https://openwork-nz.github.io/mdwg/defs/ResourceFormat.html) |
| Distribution Format | Distribution Format |  | Mandatory | [MD\_Metadata.distributionInfo>MD\_Distribution.distributionFormat>MD\_Format](https://icsm-au.github.io/metadata-working-group/defs/DistributionInfo.html) |
| File size | Distribution file size |  | Optional | [MD\_Metadata.distributionInfo>MD\_Distribution.transferOption>MD\_DigitalTransferOptions.transferSize](https://icsm-au.github.io/metadata-working-group/defs/DistributionInfo.html) |
| Data Dictionary | Label |  | Mandatory | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_PropertyType.memberName](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| Entity Type Definition |  | Optional | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_PropertyType.definition](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| Entity Type Definition Source |  | Mandatory | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.responsibility](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| (Each) Field Label |  | Mandatory | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_FeatureAttribute.memberName](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| (Each) Field Alias |  | Optional | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_FeatureAttribute.code](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| (Each) Field Definition |  | Optional | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_FeatureAttribute.definition](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| (Each) Definition Source |  | Mandatory | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.responsibility](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| (Each) Field Type |  | Optional | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_FeatureAttribute.valueType](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| (Each) Field Width |  | Optional | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_FeatureAttribute.code](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| (Each) Field Precision |  | Optional | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_FeatureAttribute.code](https://wiki.esipfed.org/MD_FeatureCatalogue) |
| (Each) Field Scale |  | Optional | [MD\_Metadata.contentInfo>MD\_FeatureCatalogue.featurecatalogue>FC\_FeatureCatalogue.globalProperty>FC\_FeatureAttribute.code](https://wiki.esipfed.org/MD_FeatureCatalogue) |

**Reference**

[ICSM ISO 19115-1 Metadata Best Practice Guide](https://icsm-au.github.io/metadata-working-group/) - this covers the main content specifications, with ISO 19115-3 being an extension covering additional deployment specifications