

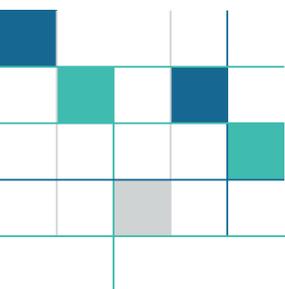
# Procedure

## Preparing data packages for the Index of Surveys for Assessments (ISA)

Index of Biodiversity Surveys for Assessment (IBSA)

Index of Marine Surveys for Assessment (IMSA)

October 2025



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### **Acknowledgements**

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# 1. Purpose

This procedure assists proponents and clients in preparing Index of Surveys for Assessments (ISA) data packages to be submitted online via the Environment Online portal as part of an application or referral under Part IV and Part V of the *Environmental Protection Act 1986* (EP Act).

# 2. Scope

The ISA encompasses both:

- Index of Biodiversity Surveys for Assessment (IBSA): being surveys of terrestrial fauna, freshwater aquatic fauna, subterranean fauna and fauna habitats; flora and vegetation; and ecological communities.
- Index of Marine Surveys for Assessment (IMSA): being surveys of marine and coastal fauna; marine and coastal flora and vegetation; benthic communities; and marine environmental quality.

This procedure applies to biodiversity and marine surveys conducted in the state of Western Australia.

The Environmental Protection Authority (EPA), Department of Water and Environmental Regulation (DWER) and Department of Mines, Petroleum and Exploration (DMPE) require submission of survey reports and data to support assessment and compliance under Part IV and Part V of the EP Act and under the Environmental Protection Regulations 1987 in Western Australia.

This procedure should be used by clients, proponents, consultants or contractors, and individuals undertaking biodiversity or marine surveys for assessment in accordance with EPA, DWER and DMPE guidelines and procedures.

# 3. Context

Biodiversity and marine surveys are conducted as part of information gathered to understand the predicted impacts of a project or proposal on the environment for assessment and compliance.

Whenever a survey report is provided for a Part IV or Part V (EP Act) process, the associated ISA data package must be submitted online via Environment Online, and the ISA number must be provided to the relevant agency for that assessment or application.

The EPA has issued technical guidance documents for biodiversity and marine surveys to ensure that biodiversity data of an appropriate standard are used in environmental impact assessments (EIA). The EPA's technical guidance documents are also used in the DWER and DMPE Native Vegetation Clearing Permit application process.



This procedure outlines the data requirements for ISA data packages, the format of data and documents for submission, and the accessibility and use of ISA data.

In the context of an ISA data package, the 'data' are the pieces of information that were collected during a survey, such as records of species observed at specific times and places, or a resulting derived dataset, such as a report or map. There may be large amounts and different types of data in an ISA data package, depending on the size and complexity of the survey.

## 4. Legislation

This procedure relates to processes regulated under the:

- *Environmental Protection Act 1986* (EP Act)
- Environmental Protection Regulations 1987

For information and guidance on survey requirements under Part IV of the EP Act, please see the EPA's [Environmental Impact Assessment Part IV \(Divisions 1 and 2\) Procedures Manual](#) and associated EPA factor guidelines and technical guidance for Land and Sea

For information and guidance on survey requirements under Part V of the EP Act, please refer to [Guideline: Native vegetation clearing referrals](#) (DWER 2021) and [native vegetation clearing permits](#) information available on the DWER website.

## 5. Outcome

The ISA program provides industry, regulators and the community with a directory of land-based biodiversity and sea-based marine surveys conducted in Western Australia for environmental impact assessments. ISA helps to create better environmental outcomes by maximising the availability of biodiversity and marine data to government, industry and the public.

The objectives of ISA are to capture and consolidate data contained in biodiversity and marine survey reports that support assessments and compliance under the EP Act and to provide a platform to make the information publicly available.

The consolidation of biodiversity and marine data in ISA delivers:

- more efficient assessments for clients
- a broader decision-making base for regulators
- an expanded knowledge base of WA's flora, fauna, communities and vegetation
- improved availability of environmental information for the community.

Once the relevant agency has made and published its final decision or recommendation on an application associated with an ISA data package, DWER will make that data package publicly available, depending on the Data Licence Statement granted on submission, via the ISA (IBSA or IMSA) websites:

Access to ISA **biodiversity** data is available on BioCollect via the [IBSA portal](#).



Access to ISA **marine** data is available on BioCollect via the [IMSA portal](#).

Records of species and communities contained in ISA data packages may also be available via the [Dandjoo portal](#), subject to terms and conditions.

## 6. ISA Submission process

### 6.1 Information required for submission

An assessment or application can have multiple survey reports associated with it, depending on the number and types of surveys undertaken. A new ISA submission is required for each survey report.

Each survey report will have an associated data package of digital files that will contain:

- the survey report (.pdf)
- a survey boundary spatial dataset provided in ESRI shapefile format (e.g. \*.shp, \*.shx, \*.dbf and \*.prj) contained in a zip file
- a survey data spatial dataset provided in ESRI shapefile format (e.g. \*.shp, \*.shx, \*.dbf and \*.prj) contained in a zip file.

Optional files may include:

- a 'data dictionary' spreadsheet of any codes used (.csv or .xls)
- a survey datasets spreadsheet (.csv or .xls).

These spatial datasets should represent the survey information that is relevant to and as captured during the survey for each report, excluding desktop studies or previous surveys referenced.

Each file within the ISA submission should comply with the relevant biodiversity or marine data standards provided in these instructions (Section 9 – Biodiversity and Section 10 – Marine).

For marine surveys that include modelling inputs, additional information can include: the standard processed products/standard grid data (i.e. multibeam or LiDAR products) and the source (i.e. raw video/photos). For files exceeding 1GB, please contact the ISA team to arrange a file transfer.

#### 6.1.1 Exclusions

ISA submissions are only required for field survey reports that have generated new data. Reports or studies based on previously existing observations, for example desktop studies or consolidated reports, do not require ISA data packages. Where new data have been obtained but a biodiversity survey report does not exist, such as for isolated observations, there is no requirement for an ISA data package to be prepared. Desktop studies, third-party reports and any other non-survey information should be submitted with general attachments in Environment Online.



For biodiversity surveys (IBSA) commenced prior to 30 April 2018, the provision of electronic data files is optional; only the survey report is required to be uploaded. Biodiversity surveys commencing after this date require the full list of data requirements outlined in this procedure.

Each survey report should only be submitted once. Do not resubmit reports that have already been submitted under another process or for another project, as this will lead to duplication of data. The existing ISA, IBSA or IMSA number can be attached or attributed to a new process by quoting the corresponding ISA, IBSA/IMSA number on the application or referral.

### 6.1.2 File formats and naming

The survey report document should be provided as an Adobe portable document format (.pdf). Any other survey technical documents (e.g. memo) should also be saved and uploaded as a .pdf file.

Each spatial dataset should be provided as an ESRI shapefile, which must include their \*.shp, \*.shx, \*.dbf and \*.prj files as a minimum, contained within a \*.zip file.

For all polygon shapefiles, each unique feature should be represented by a single consolidated feature to simplify the dataset.

All spreadsheet data should be submitted as a comma separated values (.csv) file with a well described header row (first line). Data should be free of formatting and special characters where possible. Definitions for each column heading should be described within a separate table.

Files should be named according to the ISA data package, for example '2E\_Fauna\_pt'. See Section 10 – Biodiversity and Section 11 – Marine for the attributes relevant for each survey category.

### 6.1.3 Datum

The survey details spatial dataset should use the Geocentric Datum of Australia 2020 (GDA2020) datum and be projected using the appropriate Map Grid of Australia zone, unless this is inappropriate due to the dataset's extent being larger than a single zone. This coordinate system should be defined natively with the submitted spatial data files, for example via a .prj file for submission of an ESRI shapefile.

## 6.2 Process

Proponents and clients should submit ISA data packages online via the Environment Online portal each time a survey report is provided during an assessment, application and/or compliance process. Instructions on how to access and submit a data package via Environment Online can be found on the Environment Online [ISA guidance](#) page.

Once an ISA data package is successfully submitted on Environment Online, an ISA number (e.g. ISA-0012345) is generated. The proponent or client will then quote this



ISA number as part of the assessment or application to the relevant agency, where applicable or as requested.

The ISA submission is reviewed by the ISA team for completeness and accuracy, and the status of the package is updated on Environment Online. The ISA team may contact a submitter where information is incorrect or incomplete to request further clarification, or to request that any errors need to be rectified.

Once an assessment, application or compliance process has concluded, and regardless of any appeals processes that may subsequently occur, the metadata component and survey boundary for each ISA data package will be published. This will occur for all ISA data packages, allowing all biodiversity and marine surveys conducted in Western Australia to be indexed and discoverable in ISA, even if the datasets and/or survey report themselves are not made available.

### 6.2.1 Updating a submission

All aspects of survey reports and associated data should be verified and complete upon submission. Final versions of survey reports for assessments and annual monitoring survey reports should be provided to ISA. This includes the final taxonomic resolution for species as reported within survey reports and spatial datasets (i.e. invertebrate fauna). Any changes or corrections made to an ISA data package survey report and/or spatial data during an assessment or compliance process should be made by updating the ISA data package via the Environment Online portal, or by contacting the ISA team.

## 6.3 Metadata Statement

The Metadata Statement summarises information about data collected during a survey and provides context by describing aspects of how and when data were obtained.

The Metadata Statement is an auto-populated report that is generated from the metadata information entered by the submitter or inferred from the survey report when an ISA data package has been submitted.

The metadata information are basic details about the survey, the proposal, the submitter, and the publication restrictions on the survey report and/or spatial data provided with the associated ISA package, including:

- the survey report title and author
- where the survey was located
- when it was conducted (start and end date)
- by whom it was conducted and for who
- the project or proposal name
- the level of survey used
- the groups of biotic factors surveyed or monitored.

These details are published, regardless of whether a user nominates to grant publication or third-party reuse of their data.



*Example of ISA Metadata Statement fields:*

<b>Field</b>	<b>Description</b>
Survey data package type	Biodiversity (IBSA) or Marine (IMSA)
Proponent	The name of the proponent or client the report was prepared for.
Proposal	The name of the proposal, project or area the report was prepared for.
Start date	The commencement date of the first field survey in the report.
End date	The conclusion date of the last field survey in the report.
Overall survey boundary	An attached image, spatial data file or reference to a part of the report, depicting an overall boundary enclosing the individual boundaries of all field surveys in the report.
Report Title	The full title of the report.
Author	The name of the person or group who authored the report and the electronic data files.
Year	The report's year of publication or latest revision
Survey group	The group/s of biotic factors that were surveyed (e.g. terrestrial fauna, marine fauna)
Survey type	The type of field survey(s) in the report (e.g. detailed, targeted, monitoring)
Threatened Species	Whether the dataset contains any conservation significant listed species or communities listed under the <i>Biodiversity Conservation Act 2016</i> or <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
Publication restrictions	Any restrictions on publication or use of the data or documents (e.g. licence level, threatened species) or whether third-party use of data is granted.
List of electronic data files	The name of each electronic data file accompanying the report in the ISA data package. For files that exist in sets, for example shapefiles, only list a single file name for each set.
Citation	The preferred citation for the report and electronic data files. This citation may be used by others in referencing the work.



- Metadata accompanying marine survey data may also include additional information Abstract (where published in a peer-reviewed journal)
- Responsible party (i.e. person who undertook survey)
- Field identifier
- Standard name and version used
- Language
- Online source.

### 6.3.1 Intellectual property

In practice, the person or group that conducts the field surveys, authors the report and prepares the electronic data files typically would be an environmental practitioner (consultant); by doing this work the consultant would be the Intellectual Property (IP) owner, or Licensee, and therefore would be responsible for preparing the ISA data package. In some cases, however, the client (proponent) or another party may be the IP owner (Licensee).

It is the responsibility of the submitter to determine who the IP owner is, and to ensure that they own the intellectual property rights to that material, or that they otherwise have the right and authority to submit the data to ISA. Clients and environmental practitioners should discuss their expectations around data sharing early on, at the beginning of a survey project. Clients should ensure that their requirements for intellectual property ownership and sharing are clearly defined during the procurement process or by formal agreement.

### 6.3.2 Data licencing statement

The purpose of a data licence is to allow the State of Western Australia to make the ISA data package publicly available and allow data to be reused. In accordance with its *Whole of Government Open Data Policy*, the State believes that making such data easier to find and use will unlock opportunities for the public sector, businesses and communities to utilise data in more effective and diverse ways. The granting of this licence is therefore strongly encouraged.

Where an ISA data submission contains commercially confidential information<sup>1</sup>, IP owners can control whether the data component (i.e. survey report and electronic data files) will be made publicly available and for third-party use under a Creative Commons licence. This control is exercised with a Data Licence Statement that is granted by IP owners when completing their submission via the Environment Online portal.

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<sup>1</sup> Note that 'confidential information' generally relates to trade secrets, commercially valuable, financial and personal information.



The third-party ISA Data Licence Statement options are the:

- Licensee grants the data component to be published and re-used by third parties; or
- Licensee grants the data component to be published but does not grant re-use by third parties; or
- Licensee does not grant the data component to be published or re-used by third parties.

Refer to the ISA Data Licence Statement (Appendix A) for full Terms and Conditions.

If permission to publish and third-party use is not granted, only the Metadata Statement and survey boundary will be published. The remainder of the ISA data package will be retained offline for use by agencies of the State of Western Australia for functions under the EP Act and related acts.

Conditions or instructions under the EP Act or Regulations relating to the publication of survey data and reports, including survey data collected for monitoring, will have precedence over this procedure; for example, where the publication or public sharing of data is mandated under Conditions set in a Ministerial Statement, granted licence or permit, or as a requirement of an offset.

## 6.4 Publication of data packages

Once an assessment or application process has been completed and a decision published (e.g. via a Ministerial Statement), the corresponding ISA data packages can be made publicly available, depending on the Data Licence Statement granted.

ISA data packages are published on the ISA website (i.e. IBSA/IMSA portals) and on request via [data.wa.gov.au](http://data.wa.gov.au) (spatial boundary only).

Note that under the EP Act, survey reports may also be published and made available as part of an active assessment, environmental review or application, including on the EPA, DWER and DMPE websites, exclusive of this Procedure.

Data relating to records or observations of occurrences of species, communities and ecosystems relevant to the *Biodiversity Conservation Act 2016* may also be made public through the Department of Biodiversity, Conservation and Attractions' Dandjoo portal.

Large marine data files may be made available via the Pawsey Super Computing Research Centre.

### 6.4.1 Data publicly withheld

Certain data may be kept confidential or made publicly available. This includes:

- personally identifiable information (e.g. names, addresses, phone numbers, email addresses) entered in free-text fields of this interface (not including PDF documents).



- records or locations of conservation significant species or communities; this data may be unpublished or may be restricted on the ISA website.

Data on conservation significant species and communities can be requested via the Department of Biodiversity, Conservation and Attractions.

## 7. Data standards

Collectively, these instructions, the ISA templates and the Metadata Statement with its accompanying notes and definitions, make up the ISA data standards.

The ISA data standards define a minimum required set of attributes for each electronic data file. ISA data packages should be provided containing all required files. ISA data packages that are incomplete, or do not otherwise comply with these instructions or the IBSA data standards, will be returned for correction. Electronic data files that contain additional survey attributes will be accepted.

All data should be quality controlled by the data owner for completeness, accuracy, and any errors before submission.

The standards include those datasets that are expected to be produced from biodiversity and marine surveys, and submitters should select those datasets that are most relevant to the survey being undertaken.

The ISA templates are available on the Environment Online [ISA guidance](#) page.

## 8. Survey boundary

The purpose of a survey boundary spatial dataset is to capture the boundary (extent) of a field survey and capture some basic details about the survey itself.

Within the survey boundary spatial dataset, the survey boundary area should be represented as a polygon, and the relevant information that describes the survey should be captured in the spatial dataset's attribute fields (Table 1). All attributes specified here are mandatory.

A single survey report can often contain information from multiple field surveys, such as during a two-phase survey, with different survey areas or survey categories, timeframes and other details. A survey boundary spatial dataset should have one polygon and one corresponding row of data in the attributes table for each separate field survey documented in the survey report.

The data attributes for each category are provided in Section 9 – Biodiversity and 10 – Marine. Clients select the datasets that are most relevant to the survey/s undertaken for that report.



**Table 1: Mandatory attributes required for a survey boundary spatial dataset (Biodiversity and Marine)**

<b>Feature class:</b> <i>Polygon</i>			
<b>Usage:</b> <i>The boundaries of the individual field surveys described in the survey report are to be defined using polygons.</i>			
<b>File naming:</b> <i>1_SurveyBoundary.</i>			
Field	Type	Description	Example
<i>SurveyName</i>	Text (150)	The name of the survey. Include phase information if necessary.	Phase 1 Flora and Vegetation Survey of Lot 123 Outback Rd
<i>SurveyType</i>	Text (150)	A description of the type of survey. This should match the survey type(s) stated in the submitted metadata.	Basic, Detailed, Targeted, Monitoring, Habitat Assessment
<i>Author</i>	Text (100)	The name of the person or group who authored the survey report and datasets.	ABC Consulting
<i>StartDate</i>	Date (10)	The first date on which the survey commenced in DD/MM/YYYY format.	15/08/2017
<i>EndDate</i>	Date (10)	The last date on which the survey concluded in DD/MM/YYYY format.	29/08/2017
<i>Citation</i>	Text (254)	A full citation for the accompanying survey report. This will be included in the Metadata Statement.	ABC Consulting (2018). <i>Detailed Flora and Vegetation Survey of Lot 123 Outback Rd.</i> Unpublished report prepared for XYZ Developments.

## 9. Data attributes - Biodiversity (IBSA)

### 9.1 Survey data

The purpose of the survey data spatial dataset is to identify the physical locations of field survey activities and results and capture some basic information about them.

Within survey data spatial datasets, survey activities and results are represented as polygons, polylines or points, depending on the data type (Tables 2A to 2F). The associated information should then be captured as attributes of those polygons, polylines and points. All attributes listed are mandatory, unless specified.

An individual ISA data package should contain the representative survey data spatial datasets for all the field survey activities undertaken in the corresponding report and all observations or results arising from those activities. The type and number of survey data spatial datasets will depend on the survey groups and survey types presented in the corresponding report. It is the responsibility of submitters to ensure



that all raw data are represented within the ISA data package using appropriate survey data spatial datasets.

Note: All observations of flora and fauna recorded during a survey should be submitted, including introduced taxa. Records should not be limited to listed species.

*Table 2A: Attributes required for a biodiversity survey dataset - sample sites*

Field	Type	Description	Example
<b>Feature class:</b> <i>Point, polyline and/or polygon<sup>2</sup></i>			
<b>Usage:</b> <i>The locations of sites at which samples were taken or observations were made during the field surveys are to be defined using points and/or polylines (following appropriate technical guidelines, e.g. centroid, NW corner, etc).</i>			
<b>File naming:</b> <i>2A_SampleSites.</i>			
<i>SiteName</i>	Text (50)	The name of the sampling site, as used in the survey report.	Site T-1, Bore 51
<i>SampleType</i>	Text (50)	A description of the type or level of sampling undertaken, as per EPA technical guidance.	Basic, Detailed, Targeted, Monitoring, Habitat Assessment
<i>SiteType</i>	Text (50)	A description of the site method used, refer to EPA technical guidance for full suite of methods per survey group (factor).	Trapping, Relevé, Quadrat, Opportunistic, etc.
<i>Effort</i>	Text (100)	The survey effort expended at the site. For example, the hours per sample site or the person hours expended.	7 nights x 60 traps; 4 hours per quadrat; number of persons or person hours
<i>Author</i>	Text (100)	The name of the person or group who authored the survey report and datasets. This should match the author stated in the submitted metadata.	ABC Consulting
<i>StartDate</i>	Date (10)	The date the sampling commenced at this site in DD/MM/YYYY format.	16/08/2017
<i>EndDate</i>	Date (10)	The date the sampling concluded at this site in DD/MM/YYYY format.	23/08/2017
<i>Comments (optional)</i>	Text (254)	Additional information about the sample site, if any.	Time since last fire, accessibility, etc.
<i>Citation</i>	Text (254)	A full citation for the accompanying survey report. This will be included in the Metadata Statement.	ABC Consulting (2018). <i>Detailed Terrestrial Vertebrate Fauna Survey of Lot 123 Outback Rd.</i> Unpublished report prepared for XYZ Developments Pty Ltd.

<sup>2</sup> If a survey has captured sample sites best represented by a combination of points (e.g. quadrats), lines (e.g. transects) and/or polygons (e.g. search areas), a separate shapefile for each geometry type is required. If providing shapefiles for more than one geometry type each file name should be suffixed with '\_pt', '\_pl' or '\_py' as appropriate.



Table 2B: Attributes required for a biodiversity survey dataset – flora

Field	Type	Description	Example
<b>Feature class:</b> <i>Point and/or polygon</i> <sup>3</sup>			
<b>Usage:</b> <i>The locations of flora records obtained during the field surveys are to be defined using points and/or polygons.</i>			
<b>File naming:</b> <i>2B_Flora.</i>			
<i>TaxonName</i>	Text (254)	The taxon name or species code of the flora species recorded. Provide the genus, species, and subspecies.	<i>Corymbia hamersleyana</i>
<i>SiteName</i>	Text (50)	Name of the site the flora observation/collection was made, as per the Sample Sites Survey Data spatial dataset.	Quadrat East-6
<i>Abundance</i>	Long Integer (5)	The number of individuals of this taxon observed at this location. <sup>4</sup> Use 0 if abundance was not recorded but the taxon was present.	50
<i>HerbRef</i>	Text (50)	Herbarium reference. Leave blank if the specimen has not been collected. If lodged and accessioned, insert the unique accession number assigned by the herbarium. If the specimen has been lodged but not accessioned, use the collector's name and number (or other lodgement reference).	PERTH 01305719 Beard, J. S. – 6934
<i>WAConStat</i>	Text (2)	The code for the conservation status (in WA) of the flora species recorded, as per the most recent Threatened and Priority flora list published by DBCA. Leave blank if the species has no conservation status.	CR, EN, VU, CD, OS, MI, SP, P1, P2, P3, P4
<i>DateObs</i>	Date (10)	The date this taxon was observed/collected in DD/MM/YYYY format.	17/08/2017
<i>Author</i>	Text (100)	The name of the person or group who authored the survey report and datasets. This should match the author stated in the submitted metadata.	ABC Consulting
<i>Comments (optional)</i>	Text (254)	Additional information about the flora observation, if any.	Flowering, condition, age, seasonality, time since rainfall, etc.



<i>Citation</i>	Text (254)	A full citation for the accompanying survey report. This will be included in the Metadata Statement.	ABC Consulting (2018). <i>Detailed Flora and Vegetation Survey of Lot 123 Outback Rd.</i> Unpublished report prepared for XYZ Developments.
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<sup>3</sup> If a survey has produced flora data best represented by a combination of points, e.g. locations of individuals, and polygons, e.g. distribution of a large population, a separate shapefile for each geometry type is required. If providing shapefiles for more than one geometry type each file name should be suffixed with ‘\_pt’ or ‘\_py’ as appropriate.

<sup>4</sup> To denote absence, i.e. a situation where the taxon has been specifically surveyed for and definitively found to be absent, use ‘-1’.



Table 2C: Attributes required for a biodiversity survey dataset – vegetation mapping

Field	Type	Description	Example
<p><b>Feature class:</b> <i>Polygon</i></p> <p><b>Usage:</b> <i>The discrete vegetation units mapped during the field surveys are to be defined using contiguous polygons.</i></p> <p><b>File naming:</b> <i>2C_Vegetation.</i></p>			
<i>VegUnit</i>	Text (254) <sup>5</sup>	Description of the discrete vegetation unit observed.	<i>Themeda</i> sp. Hamersley Station, <i>Eriachne benthamii</i> tall closed tussock grassland
<i>PECTEC_Sts</i>	Text (8)	Priority or Threatened Ecological Community status, as per the most recent listing and status by DBCA. At the time of finalisation of the report, is this vegetation unit consistent with or part of a known threatened or priority ecological community and treated as such in the assessment?	Yes, No, or Possible
<i>PECTEC_Det</i>	Text (254)	PEC/TEC listed name, jurisdiction (WA or EPBC). Include the details for both jurisdictions if relevant. e.g. Jurisdiction + 'Community name + (Location)' If <i>PECTEC_Sts</i> is "No", leave blank.	WA TEC 'Themeda grasslands on cracking clays (Hamersley Station, Pilbara)'
<i>CreationYr</i>	Long Integer (4)	The year the vegetation mapping represents. <sup>6</sup> In YYYY format.	2017
<i>Author</i>	Text (100)	The name of the person or group who authored the survey report and datasets. This should match the author stated in the submitted metadata.	ABC Consulting
<i>Comments (optional)</i>	Text (254)	Additional information about the vegetation units, if any.	Existing disturbance, fire, disease (e.g. dieback), grazing, accessibility, seasonality, rainfall, etc.
<i>Citation</i>	Text (254)	A full citation for the accompanying survey report. This will be included in the Metadata Statement.	ABC Consulting (2018). <i>Detailed Flora and Vegetation Survey of Lot 123 Outback Rd.</i> Unpublished report prepared for XYZ Developments.

<sup>5</sup> Due to the 254-character field size limit of shapefiles, the vegetation unit description may be split across multiple fields. These overflow fields should be named *VegUnit1*, *VegUnit2*, etc. Alternatively,



where the description exceeds the 254-character limit, the vegetation code used in the survey report may be entered instead. In cases where this vegetation code is provided, it is requested that a 'data dictionary' spreadsheet (.xls or .csv format) is provided to provide the full description for the vegetation code.

<sup>6</sup> Vegetation classification and mapping may be based on multiple surveys, over multiple years, by multiple practitioners. As such, it is difficult to attach a precise date to a vegetation map based on survey timing. Including the year the vegetation mapping was undertaken, gives an indication of its currency for future reference. For the dates of the surveys that contributed to the mapping, users should refer to the methodology section of the associated flora and vegetation survey report.



Table 2D: Attributes required for a biodiversity survey dataset – vegetation condition

<b>Feature class: Polygon</b>			
<b>Usage:</b> The discrete vegetation condition areas mapped during the field surveys are to be defined using contiguous polygons			
<b>File naming:</b> 2D_VegetationCondition			
<b>Field</b>	<b>Type</b>	<b>Description</b>	<b>Example</b>
<i>VegCond</i>	Text (20)	Observed condition of the vegetation as per EPA technical guidance (Table 2) <sup>7</sup> , as presented in the report's tables and figures. The vegetation condition should be provided as full words and not abbreviations.	Pristine, Excellent, Very Good, Good, Poor, Degraded, Completely Degraded
<i>CreationYr</i>	Long Integer (4)	The year the vegetation mapping represents. <sup>8</sup>	2017
<i>Author</i>	Text (100)	The name of the person or group who authored the survey report and datasets. This should match the author stated in the submitted metadata.	ABC Consulting
<i>Comments (optional)</i>	Text (254)	Additional relevant information about the vegetation condition, if any.	Existing disturbance, fire, disease (e.g. dieback), grazing, accessibility, seasonality, rainfall, etc.
<i>Citation</i>	Text (254)	A full citation for the accompanying survey report. This will be provided in the Metadata Statement.	ABC Consulting (2018). <i>Detailed Flora and Vegetation Survey of Lot 123 Outback Rd</i> . Unpublished report prepared for XYZ Developments.

<sup>7</sup> Different condition scales used depending on bioregion or botanical province. Southwest & Interzone: Keighery 1994; Eremaean & Northern Trudgen 1988

<sup>8</sup> Vegetation classification and mapping may be based on multiple surveys, over multiple years, by multiple practitioners. As such, it is difficult to attach a precise date to a vegetation map based on survey timing. Including the year the vegetation mapping was undertaken, gives an indication of its currency for future reference. For the dates of the surveys that contributed to the mapping, users should refer to the methodology section of the associated flora and vegetation survey report.



Table 2E: Attributes required for a biodiversity survey dataset – fauna

Field	Type	Description	Example
<b>Feature class:</b> Point and/or polygon <sup>9</sup>			
<b>Usage:</b> The locations of fauna records obtained during the field surveys are to be defined using points.			
<b>File naming:</b> 2E_Fauna			
<i>TaxonName</i>	Text (254)	The full taxon name of the fauna species or for unnamed species include the species code name used in the report. For invertebrate and subterranean fauna: Use 'sp.' if identification unknown or 'indet.' if unable to be identified.	Genus species subspecies: i.e. <i>Dasyercus blythi Antichiropus</i> sp. "MYG305"
<i>SiteName</i>	Text (50)	The name of the site where the fauna observation was made, as per the 2A_SampleSites spatial dataset.	Trapping site 9; Bore 15
<i>Abundance</i>	Long Integer (5)	The number of individuals of this taxon observed at this location. <sup>10</sup> Use 0 if abundance was not recorded but the taxon was present.	6
<i>MuseumRef</i>	Text (50)	<u>WA Museum registration number.</u> If the specimen has been vouchered and catalogued/registered, insert the unique registration number assigned by the WA Museum. If the specimen has been vouchered but not catalogued, used the voucher number (or other lodgement reference). Leave blank if the specimen has not been vouchered.	WAM M41476
<i>WAConStat</i>	Text (2)	The code for the conservation status (in WA) of the fauna species recorded, as per the most recent Threatened and Priority fauna list published by the DBCA. Leave blank if the species has no conservation status.	CR, EN, VU, CD, OS, MI, SP, P1, P2, P3, P4
<i>SRE_Sts</i> (terrestrial invertebrate fauna)	Text (20)	SRE status. At the time of finalisation of the report, was this taxon considered to be a short-range endemic or treated as such in the assessment.	No, Unknown, Yes, Confirmed, Likely, Potential, Unlikely



<i>Sub_Sts</i> ( <i>Subterranean fauna only</i> )	Text (20)	Subterranean fauna status. At the time of finalisation of the report, was this taxon considered to be a subterranean fauna taxon or treated as such in the assessment, as per EPA guidance definition.	No, Unknown, Yes, Confirmed, Likely, Potential, Unlikely
<i>ObsMethod</i>	Text (50)	The method by which this taxon was observed or captured, as per the methods listed in EPA Technical Guidance for the respective fauna group.	Aluminium box trap, pitfall trap, camera, scrape, net, wetpit, hand-foraging, observation, etc.
<i>FaunaType</i>	Text (50)	The group of fauna the species belongs to (for Marine Fauna see Table 4A).	Terrestrial vertebrate, Terrestrial invertebrate, Aquatic fauna, Subterranean fauna
<i>LifeStage</i> ( <i>optional</i> )	Text (50)	The age of the fauna recorded, most often used for invertebrate fauna. Different fauna groups will have different terms used to describe this information.	Adult, Sub-adult, Juvenile, etc.
<i>Reprod_Sts</i> ( <i>optional</i> )	Text (50)	Whether any breeding or reproduction was observed. Different fauna groups will have different terms used to describe this information.	Mature, breeding, fledged young
<i>DateObs</i>	Date (10)	The date this taxon was observed or collected in DD/MM/YYYY format.	17/08/2017
<i>Author</i>	Text (100)	The name of the person or group who authored the survey report and datasets. This should match the author stated in the submitted metadata.	<i>ABC Consulting</i>
<i>Comments</i> ( <i>optional</i> )	Text (254)	Additional information about the fauna observation, if any.	Male/Female, behaviour, seasonality, time since rainfall, etc.
<i>Citation</i>	Text (254)	A full citation for the accompanying survey report. This will be provided in the Metadata Statement.	ABC Consulting (2018). <i>Detailed Terrestrial Vertebrate Fauna Survey of Lot 123 Outback Rd</i> . Unpublished report prepared for XYZ Developments.

<sup>9</sup> If a survey has produced fauna data best represented by a combination of points (e.g. multiple locations of individuals) and polygons (e.g. distribution of a large population) then a separate shapefile



for each geometry type is required. If providing shapefiles for more than one geometry type each file name should be suffixed with ‘\_pt’ or ‘\_py’ as appropriate.

<sup>10</sup> If it is necessary to denote absence, i.e. a situation where the taxon has been specifically surveyed for and definitively found to be absent, use ‘-1’



Table 2F: Attributes required for a biodiversity survey dataset – fauna habitat

Field	Type	Description	Example
<b>Feature class:</b> <i>Point and/or polygon</i> <sup>11</sup>			
<b>Usage:</b> <i>The discrete fauna habitats mapped during the field surveys are to be defined using points (individual) or contiguous polygons (extent).</i>			
<b>File naming convention:</b> <i>2F_FaunaHabitat</i>			
<i>FaunaHab</i>	Text (254)	Broad description of the fauna habitats present in the survey area	Spinifex sand plain; granite outcrop; Eucalypt woodland
<i>HabCond (optional)</i>	Text (50)	Observed condition of the habitat as presented in report tables and figures. Note that fauna habitat condition may be independent of vegetation condition. The fauna habitat condition should be provided as full words and not abbreviations.	Pristine, Excellent, Very Good, Good, Poor, Degraded, Completely Degraded
<i>HabSuit (optional)</i>	Text (50)	For MNES vertebrate fauna, subterranean fauna and SRE invertebrate fauna. The suitability or predicted suitability of fauna habitat for that species or fauna group.	Critical, High, Moderate, Low, Suitable, Unsuitable
<i>HabUse (optional)</i>	Text (50)	The recorded use of the habitat (e.g for use when mapping habitat caves, trees or other features).	Foraging, Roosting, Breeding, Dispersal
<i>CreationYr</i>	Long Integer (4)	The year the habitat mapping polygons were created <sup>12</sup> YYYY format.	2017
<i>Author</i>	Text (100)	The name of the person or group who authored the survey report and datasets. This should match the author stated in the submitted metadata.	<i>ABC Consulting</i>
<i>Comments (optional)</i>	Text (254)	Additional information about the fauna habitat, if any.	Existing disturbance, fire, disease (e.g. dieback), grazing, accessibility, seasonality, rainfall, etc.
<i>Citation</i>	Text (254)	A full citation for the accompanying survey report. This will be provided in the Metadata Statement.	ABC Consulting (2018). <i>Detailed Terrestrial Vertebrate Fauna Survey of Lot 123 Outback Rd.</i> Unpublished report prepared for XYZ Developments.

<sup>11</sup> If a survey has produced fauna habitat data best represented by a combination of points, e.g. bat caves, and polygons, e.g. spinifex sand plain, a separate shapefile for each geometry type is required.



If providing shapefiles for more than one geometry type each file name should be suffixed with ‘\_pt’ or ‘\_py’ as appropriate.

<sup>12</sup> Fauna habitat classification and mapping may be based on multiple surveys, over multiple years, by multiple practitioners. As such, it is difficult to attach a precise date to a habitat map based on survey timing. Including the year the fauna habitat mapping was undertaken, gives an indication of its currency for future reference. For the dates of the surveys that contributed to the mapping, users should refer to the methodology section of the associated fauna survey report.

## 10. Dataset attributes - Marine (IMSA)

The below standard defines the minimum standard for marine survey data that is submitted to ISA. The standard defines the minimum structure of each dataset, with the expectation that the submitters will add as many additional data fields to ensure all data is comprehensive and relevant to their application or assessment.

Marine data focuses on four categories: modelling inputs, marine fauna, benthic communities and habitat, and marine environment quality, as shown in Table 3.

Refer to Appendix B for specific examples of recommended source data standards for each relevant IMSA data category.

*Table 3: Marine data categories*

<b>Data Category</b>	<b>Category Description</b>	<b>Relevant Data</b>
Modelling input	This category contains the physical oceanographic data routinely collected for input into models.	Source >> hydrodynamics <ul style="list-style-type: none"> <li>• currents (direction, speed, depth)</li> <li>• waves (period, plus)</li> <li>• oscillations</li> <li>• CTD (conductivity, temperature, depth)</li> <li>• date</li> <li>• source terms</li> <li>• validation data (confidence interval)</li> </ul>
Marine fauna	Data collected about marine fauna.	Map layer >> marine fauna mapping <ul style="list-style-type: none"> <li>• area</li> <li>• classification</li> <li>• seasonality</li> <li>• date</li> <li>• condition</li> <li>• critical environmental windows</li> <li>• time series</li> <li>• habitat.</li> </ul>
Benthic communities and habitats	Data collected about the seafloor habitat and associated communities.	Map layer >> habitat mapping <ul style="list-style-type: none"> <li>• area</li> <li>• classification</li> <li>• seasonality</li> <li>• date</li> <li>• condition</li> <li>• critical environmental window</li> </ul>



		<ul style="list-style-type: none"> <li>• time series.</li> </ul> <p>Map layer &gt;&gt; regional distribution</p> <ul style="list-style-type: none"> <li>• area</li> <li>• classification.</li> </ul> <p>Map layer &gt;&gt; local assessment unit</p> <ul style="list-style-type: none"> <li>• extent</li> <li>• area</li> <li>• rationale.</li> </ul>
<p>Marine environmental quality</p>	<p>Data collected about water, sediment and biota quality</p>	<p>Map layer &gt;&gt; environmental quality plan</p> <ul style="list-style-type: none"> <li>• values</li> <li>• area</li> <li>• objectives</li> <li>• ecological protection.</li> </ul> <p>Standard product &gt;&gt; water quality</p> <ul style="list-style-type: none"> <li>• location</li> <li>• parameters</li> <li>• values</li> <li>• frequency</li> <li>• duration.</li> </ul> <p>Standard product &gt;&gt; sediment quality</p> <ul style="list-style-type: none"> <li>• location</li> <li>• parameters</li> <li>• values</li> <li>• frequency</li> <li>• duration.</li> </ul> <p>Standard product &gt;&gt; biota quality</p> <ul style="list-style-type: none"> <li>• location</li> <li>• parameters</li> <li>• values</li> <li>• frequency</li> <li>• duration.</li> </ul>



Table 4A: Attributes required for a marine survey dataset - marine fauna

<b>Feature class: Point and/or polygon</b>				
<b>Usage: The discrete fauna observations mapped during the field surveys are to be defined using points (individuals) or contiguous polygons (population/group).</b>				
<b>File naming convention: 4A_MarineFauna</b>				
<b>GDB Field</b>	<b>Shp Field</b>	<b>Type</b>	<b>Description</b>	<b>Example</b>
Taxon	<i>Taxon</i>	Text (100)	The recognised scientific name, and common name, as per relevant State or Federal species list e.g. WA Museum	<i>Megaptera novaeangliae</i> (Humpback whale)
StartDate	<i>StartDate</i>	Date/Time	The date the sampling commenced at this site. Time as well if appropriate. Use ISO 8601 standard.	YYYY-MM-DD HH:MM:SS: 2017-08- 16T13:12:11
EndDate	<i>EndDate</i>	Date/Time	The date the sampling concluded at this site. Time as well if appropriate. Use ISO 8601 standard.	YYYY-MM-DD HH:MM:SS: 2017-08- 16T13:12:11
Habitat	<i>Habitat</i>	Text (100)	A description of the habitat animal was observed in with reference to classification system used e.g. CATAMI	Substrate: Unconsolidated (soft)
Comment (Optional)	<i>Comment</i> (Optional)	Text (255)	Any additional Information	



**Table 4B: Attributes required for a marine survey dataset - benthic communities and habitat**

<b>Feature class:</b> <i>Point and/or polygon</i>				
<b>Usage:</b> <i>The discrete observations mapped during the field surveys are to be defined using points (individuals) or contiguous polygons (extent).</i>				
<b>File naming convention:</b> 4B_Benthic				
<b>GDB Field</b>	<b>Shp Field</b>	<b>Type</b>	<b>Description</b>	<b>Example</b>
HabitatType	<i>HabitatTyp</i>	Text (100)	A description of the benthic community and habitat with reference to classification system used e.g. CATAMI	Cnidaria: Corals: Stony corals: Branching
StartDate	<i>StartDate</i>	Date/Time	The date the sampling commenced at this site. Time as well if appropriate. Use ISO 8601 standard.	YYYY-MM-DD HH:MM:SS: 2017-08- 16T13:12:11
EndDate	<i>EndDate</i>	Date/Time	The date the sampling concluded at this site. Time as well if appropriate. Use ISO 8601 standard.	YYYY-MM-DD HH:MM:SS: 2017-08- 16T13:12:11
Condition	<i>Condition</i>	Text (100)	Condition of the biota	Bleached / Dead
Comment (Optional)	<i>Comment (Optional)</i>	Text (255)	Any additional Information	



**Table 4C: Headers and descriptions for a marine survey dataset - marine environmental quality**

<b>Feature class: Point and/or polygon</b>				
<b>Usage: The discrete observations mapped during the field surveys are to be defined using points (individual location) or contiguous polygons (extent).</b>				
<b>File naming convention: 4C_MarEnvQ1</b>				
<b>GDB Field</b>	<b>Shp Field</b>	<b>Type</b>	<b>Description</b>	<b>Example</b>
SiteRef	<i>SiteRef</i>	Text (50)	The primary reference code or number used to identify the site. The site reference derives from a particular numbering system set by the project that employs a meaningful structure.	RTU0198
CollectedDate	<i>CollectDat</i>	Date/Time	The date and time of the collected sample, down to the second.	YYYY-MM-DD HH:MM:SS: 2017-08- 16T13:12:11
SampleID	<i>SampleID</i>	Integer	A unique ID for the sample	12235
LabSampleNo	<i>LabSampleNo</i>	Integer	A tracking number applied to the sample by the analytical laboratory where applicable.	13245
DepthMeasurementPt	<i>DpthMeasPt</i>	Text (50)	The measurement or reference point from which the depth of the sample was measured	Surface water level (SWL)
SampleDepth	<i>SamDepth</i>	Number	A text field describing the depth or depth range at which the sample was collected	2.5



			in metres. Depth may be a single value (for example 2.5) for grabs and in situ samples, or a range (for example 0–3.5) for samples taken over depth	
CollectionMethod	<i>CollMethod</i>	Text (100)	The means by which the sampler was able to capture or collect the matrix in order to measure it. It is not the instrument or device used to collect the sample, but rather the methodology employed.	Sediment grab
CollectionDevice	<i>CollDevice</i>	Text (50)	The device that was used to capture or collect the matrix in order to measure it. It is not the instrument used to take the measurement.	Petite Ponar (9L)
CollectionFrequency	<i>CollFreq</i>	Text (50)	The general frequency of the sampling	Once-off
SampleMatrix	<i>SampMatrix</i>	Text (50)	The physical medium that was sampled or measured	Water
SampleComment	<i>SampCommnt</i>	Text (255)	Comments made about the sample by the sampler or data capture staff	



**Table 4D: Headers and descriptions for a marine survey dataset – marine environmental quality spreadsheet**

**Feature class:** Point and/or polygon

**Usage:** The headers and descriptions for marine environmental quality mapped during the field surveys are to be defined using points (individual locations) or contiguous polygons (extent).

**File naming convention:** 4C\_MarEnvQ2

GDB Field	Shp Field	Type	Description	Example
SampleID	SampleID	Integer	A unique ID for the sample (see Table 4C)	12235
Variable	Variable	Text (50)	The variable (the basic element or property measured). *Note in DWER Water Information Reporting the Variable and Units combine to make the field “Determined”	N (tot) {TN, pTN}
Units	Units	Text (50)	Standard reporting units for the sample matrix	mg/L
ReadingValue	ReadingVal	Various	The value being reported can be a number, range, date, text	5 - 10
VariableName	VarName	Text (50)	The name or identifier for a constituent or property that is measured or estimated in a sample or field measurement. See “variable and analysis methods” for details	N (tot inorg)
VariableType	VarType	Text (50)	A means of classifying variables into groups having similar chemical structure, end use, biological order, physical characteristics and/or measurement technique. See “Variable and Analysis Methods” for details	Isotope ratios
VariableNameQualifier	VarNamQual	Text (50)	A property that moderates or qualifies a variable, such as	10 – 12 mm



			specimen length ranges	
AnalysisMethodCode	AMCode	Integer	The code assigned by a laboratory or the department to uniquely identify the analysis method used to obtain the reading. For field readings this is generally "Direct reading". See "variable and analysis methods" for details	3000
MeasurementInstrument	Instrument	Text (100)	The field or laboratory instrument used to obtain the measurement	Counter
StandardUnits	StndrdUnts	Text (50)	The standard units for the variable and sample matrix being measured	mg/L
LimitOfReporting	LOR	Various	Record the minimum concentration of a substance in a sample that can be reliably detected by a laboratory.	0.01 mg/L
QualityCode	QualCode	Integer	The quality code for the reading (see Table 10 of WIR Explanatory Notes)	5



# Document implementation

This procedure supersedes:

- *Instructions for the preparation of data packages for the Index of Biodiversity Surveys for Assessment – IBSA (EPA 2021)*
- *Instructions for the preparation of data packages for the Index of Marine Surveys for Assessment - IMSA (EPA 2020)*

This procedure comes into effect on the day it is published. Applications received after publication will be assessed in accordance with the information contained herein.

## Training

For external and internal ISA users, guidance, templates and instructions on how to use and submit ISA data can be found on [Environment Online](#).

For further information, please refer to the [Index of Surveys for Assessments](#) on the Government of Western Australia (wa.gov.au) website.

## IBSA transition period

Mandatory full IBSA data standards came into effect for all biodiversity surveys commencing on or after 30 April 2018.

For biodiversity surveys commencing prior to 30 April 2018, a transition period was applied with reduced survey data package requirements for retrospective submissions (see Section 7). However, to deliver the best outcome for users, it is strongly encouraged regardless of whether the transition period applies that provision of a complete set of electronic data files in full compliance with the ISA data standards is supplied.



## Related documents

<b>Non-department documents</b>	
<b>Author</b>	<b>Title</b>
Government of Western Australia	<a href="#"><u>Biodiversity Conservation Act 2016</u></a> Administered by the Department of Biodiversity, Conservation and Attractions
Government of Australia	<a href="#"><u>Environment Protection and Biodiversity Conservation Act 1999</u></a> Administered by Department of Climate Change, Energy, the Environment and Water
Department of Premier and Cabinet	<a href="#"><u>Open Data Policy 2022</u></a>

<b>Department documents</b>	
<b>Author</b>	<b>Title</b>
Environmental Protection Authority	<a href="#"><u>Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures</u></a>
Environmental Protection Authority	<a href="#"><u>Land: Environmental Factor and Technical Guidelines for surveys for environmental impact assessment</u></a>
Environmental Protection Authority	<a href="#"><u>Sea: Environmental Factor and Technical Guidelines for surveys for environmental impact assessment</u></a>
Department of Water and Environmental Regulation	<a href="#"><u>Guideline: Native vegetation clearing referrals (DWER 2021)</u></a> <a href="#"><u>Procedure: Water licenses and permits</u></a>



## Custodian and review

The currency of this document will be continuously evaluated and reviewed no later than three years from the date of issue or sooner as required.

Users should consult the [Environment Online](#) and DWER websites to ensure they have the most recent versions of these instructions, and the accompanying templates and forms, prior to using them.

<b>Document details</b>	
Lead group (custodian)	Nature Directorate, Climate and Sustainability
Current version	
Corporate file number	



## Appendix A - ISA Data Licence Statement

1. I confirm that I have the authority to share any documents I submit through this interface and to consent to these Terms and Conditions.

### Terms and Conditions

In addition to the Conditions outlined in the [Environment Online Terms of Use](#) and [Privacy Policy](#):

2. I confirm that my ISA submission has been prepared in accordance with DWER's *Procedure: Preparing data packages for the Index of Surveys for Assessment*.
3. I recognise that my ISA submission is pending review, and that my submission may require amendment before being accepted, or may be rejected. I understand that I will be notified on the Environment Online interface and/or by email on the status of my submission and it is my responsibility to update my submission if requested.
4. I acknowledge that I may be contacted at any time during or after the assessment process, including after a submission is accepted or published, to request further clarification on certain fields, records, or values in my documentation if errors are detected or in the event that additional information is requested by a data user.
5. I understand that all documents submitted will be used by the State of Western Australia for functions under the Environmental Protection Act (1986).
6. I grant the State of Western Australia worldwide, royalty-free, non-sublicensable, non-exclusive, irrevocable license to communicate this ISA data package to the public, in accordance with the State of Western Australian Government's *Open Data Policy (2022)* including:
  - websites, products, documents or other publications owned and operated by the State of Western Australia;
  - websites, products and documents prepared by the Environmental Protection Authority;
  - under agreement with the CSIRO as the host, storage and publication of the ISA (IBSA/IMSA) websites on the BioCollect platform, or future iterations of;
  - under agreement with the DBCA, as hosts of the Biodiversity Information Office (BIO) Dandjoo interface, subject to Item 8;
  - under agreement with the Pawsey Super Computing Research Centre (Marine only);
  - on request, through data.wa.gov.au.
7. I acknowledge that any documents submitted may be publicly attributed to me and/or my organisation as per the information I enter in the Environment Online



portal, with the exception of personally identifiable information (e.g. names, addresses, phone numbers, email addresses) in free-text fields of this interface (not including PDF documents).

8. I recognise that any documentation I submit through this interface may be made available to DBCA's Biodiversity Information Office (BIO) under the [Biodiversity Conservation Act 2016](#) and that documentation may be made public via the Dandjoo interface and via provision of the entire dataset (including non-standard fields not visible in the Dandjoo interface) to users who request it, with the following exceptions:
- individual records relating to a conservation significant species; and
  - any personally identifiable information (e.g. names, addresses, phone numbers, and email addresses) detected by BIO in free-text fields.
  - Published works, being PDF or full versions of survey reports, that may be subject to a Copyright Notice, unless otherwise granted (Section 9).
9. Third-party Licence: Unless otherwise expressly indicated on submission, I agree that any documentation I submit through this interface is provided to State Government of Western Australia under a Creative Commons Attribution 4.0 International Public Licence ([CC-BY 4.0](#)). I have read and understand the terms of the [CC-BY 4.0 licence](#), and recognise that the terms of the licence apply to all third-party downstream recipients of any submitted data and understand that:
- The party is free to
    1. Share - copy and redistribute the material in any medium or format
    2. Adapt - remix, transform and build upon the material for any purpose, even commercially
    3. Under these terms, the third part must:
      - i. provide attribution - identify appropriate credit, link to the Licensed Material;
      - ii. provide the Public License or copyright notice, a notice of disclaimer of warranties;
      - iii. indicate if any modifications were made. The third party may do so in any reasonable manner, but not in any way that suggests that the submitter endorses the third party or the third party's use of the material; and
      - iv. have no downstream (additional) restrictions - the third party may not apply legal terms or technological measures that legally restrict others from doing anything the CC license permits.



10. I acknowledge that at a minimum, regardless of whether publication (Section 6) or third-party use (Section 9) is granted at submission, the details of the Metadata Statement and the survey boundary will be published (Section 6; Section 8).
11. I confirm that, to the best of my knowledge no data I submit through this interface includes content that is prohibited from public release due to legislative, policy, or commercial restrictions, or for any other reason.
12. I recognise that submission of data by this interface does not constitute a transfer of ownership to the State Government of Western Australia, nor relieve the submitter of any pre-existing obligations in relation to the original data, including obligations relating to its storage, backup, and protection.
13. I confirm that, to the best of my knowledge, any data I submit through this interface is accurate and correct to the extent practicable within the limits of the scientific process by which it was collected.
14. I acknowledge that, DWER will apply routine curation and assurance processes to check for errors and align data with reports, metadata and ISA survey dataset attributes standards consistent with the Procedure.
15. I acknowledge that, while DWER will apply routine curation and assurance processes to identify potential errors and personally identifiable information contained in any data I submit through this interface, DWER cannot guarantee that all errors and/or instances of personally identifiable information will be identified.



## Appendix B - Recommended Marine Source Data

Rather than mandatory requirements, a list of recommended guidelines that aid in interoperability and reusability for IMSA data categories is provided below:

### Marine fauna

- Department of the Environment and Energy Guidelines for biological survey and mapped data
- EPA Marine Fauna Environmental Factor Guideline.

### Benthic habitat

- The National Environmental Science Programme (NESP) Biodiversity Hub has created standard operating procedures in the collection and analysis of monitoring data. This will allow synthesis between institutions, regions and times for data collected into the future.
- CATAMI Classification Scheme – part of the review of existing international and national classification schemes from the seimap classification page.

### Oceanographic / modelling inputs

- AusSeabed's mission is to improve the awareness, coverage, quality, discoverability and accessibility of seabed mapping data through coordination and collaboration in the Australian region with a focus on bathymetry. There is an AusSeabed data hub project which is developing best-known practices and standards. Outcomes of this development should be followed for relevant data types where appropriate.
- IMO / AODN NetCDF standards.

### Marine Environment Quality

- EPA Marine Environmental Quality – Environmental Factor Guideline
- DWER [Water Information Reporting system - Help guides](#)
- DWER [Water Information Reporting system – Explanatory notes](#)
- National Industry Guideline for water quality metadata (also relevant for hierarchical level 3).

For further detail and descriptions refer to the Department of Water and Environmental Regulation's Water information reporting (WIR) system Explanatory notes document, specifically Section 6.1 - data reports. Also see the variable and analysis method lists. The aim is to align IMSA marine environmental quality data to existing water information reporting as far as practicable.



## Glossary

<b>BC Act</b>	<i>Biodiversity Conservation Act 2016</i> and any amendments
<b>BIO</b>	Biodiversity Information Office, managed by DBCA
<b>BioCollect</b>	Refers to the online data collection and provision tool developed and managed by CSIRO under the Atlas of Living Australia website that hosts ISA (IBSA/IMSA)
<b>Conservation Significant</b>	Any species or community listed under the BC Act or EPBC Act, or the DBCA Priority flora, fauna and ecological communities' lists.
<b>CSIRO</b>	Commonwealth Scientific and Industrial Research Organisation, a federal government agency that manages the BioCollect
<b>Curation</b>	Review of data for anomalous spatial, temporal, taxonomic values, potential duplication, and/or inconsistencies of any other business rules applied for quality control purposes
<b>Data</b>	In the context of this agreement, all files and associated metadata provided to the Index of Surveys for Assessment (ISA) using this interface
<b>Dandjoo</b>	Western Australian biodiversity data-sharing platform established by DBCA and managed by BIO
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions, a State of Western Australia government agency
<b>Documentation</b>	A document, application, report, return, certificate, decision, statement or recommendation and information or data
<b>DWER</b>	Department of Water and Environmental Regulation or iterations of, a State of Western Australia government agency
<b>DMPE</b>	Department of Mines, Petroleum and Exploration or iterations of, a State of Western Australia government agency
<b>EPA</b>	Environmental Protection Authority of Western Australia
<b>EP Act</b>	<i>Environmental Protection Act 1986</i>



<b>EPBC Act</b>	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
<b>IBSA</b>	Index of Biodiversity Surveys for Assessment relating to survey or monitoring undertaken on terrestrial, subterranean and aquatic flora, vegetation, fauna, communities and their habitats for environmental impact assessment processes under the EP Act
<b>Interface</b>	ISA Submission portal via Environment Online
<b>IMSA</b>	Index of Marine Surveys for Assessment relating to survey or monitoring undertaken on marine, coastal, estuarine and benthic flora, vegetation, fauna, communities and their habitats for environmental impact assessment processes under the EP Act
<b>ISA</b>	Index of Surveys for Assessment, whereby referring to both IBSA and IMSA
<b>Publish</b>	To keep a public record of and make available for public inspection via websites or other sources owned and managed by departments operating under the EP Act, including but not limited to: Environment Online, IBSA and IMSA portals (current and future versions), the EPA, DWER and DEMIRS websites, where appropriate
<b>State of Western Australia</b>	Western Australian Government agencies including the Department of Water and Environmental Regulation (DWER), the Environmental Protection Authority (EPA), and the Department of Mines, Petroleum and Exploration (DMPE), and other agencies that may use the ISA for provision of data, now or in future
<b>Submission</b>	To make, provide, produce or upload any documents or information via this interface
<b>Third Party</b>	An individual or group that is not an agency of the State of Western Australia