# Metadata Made Easy

## Producing GIS Metadata to benefit End-Users

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*Attractive Thriving Welcoming*

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# About this Presentation

- Focussing more on producing an internal ‘Map Data Catalogue’
- Utilising software and skills which exist in most Councils
- Main driver is to inform our end-users (staff) of Council held GIS data
- Will not be focussing as much on compliant metadata (ISO 19115)

# Metadata Made Easy

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## Compliant Metadata can be hard to understand for most End-Users

**Lower Hunter and Central Coast Regional vegetation survey VIS_ID 2227**

**Metadata**

***File Identifier:*** {68E71CA7-62C0-4E2F-9176-97860EEFA0D0}
***Metadata Language:*** eng
***Character Set:*** utf8
***Resource Type:***
***Responsible Party:***
***Individual Name:***
***Organisation Name:*** Office of Environment and Heritage (OEH)
***Position Name:*** Data Broker
***Role:*** Distributor
***Contact Info:***
***Voice:*** 02 6740 2349
***Fax:*** 02 6742 3129
***Delivery Point:*** PO Box 3720
***City:*** Parramatta
***Administrative Area:*** NSW
***Postal Code:*** 2124
***Country:*** Australia
***E-Mail Address:*** data.broker@environment.nsw.gov.au
***Online Resource:***
***Metadata Date:*** 2009-06-18
***Metadata Standard Name:*** ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information - Metadata
***Metadata Standard Version:*** 1.1

**Data Identification**

***Abstract:*** The NPWS were contracted by the Lower Hunter and Central Coast Regional Environment Management Strategy (LHCCREMS) to carry out vegetation survey and mapping across the region. The initial vegetation survey and mapping study formed the first major part of the data collection and analysis effort for this project.The primary aims of the study were to produce a detailed cross tenure map of the distribution of the vascular plant communities in the Lower Hunter and Central Coast region; provide estimates of the distribution of the plant communities prior to the arrival of Europeans (pre-1750); utilise project methodologies which are consistent with the Comprehensive Regional Assessment (CRA) work conducted on public land in the region so that the two surveys can be amalgamated into a single database to greatly improve the resolution and usefulness of each; and provide a context for future studies so that data collection is compatible with, and contributes to the on-going development of a comprehensive regional database.This work was then updated by Ecological in May 2003. This involved the integration of additional remnant mapping, review of mapping errors and correction, additional canopy cover mapping and other general refinements of the map layer, including information on canopy condition. Extant vegetation data mapped from aerial photos, combined with a pre1750 model of vegetation communities to produce an extant vegetation community map. Photos flown between 2000 & 2001 to produce extant vegetation map. This map then combined with the existing pre1750 vegetation community mapping undertaken by NSW NPWS to produce an extant vegetation community map. (VIS_ID 2227)
***Purpose:***

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## Considerations…

- GIS datasets are all unique which warrants supporting information
- Most of our end-users will assume the GIS data is accurate
- Our end-users are making important decisions based on GIS data
- Commencing the process of producing metadata can be overwhelming

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# Considerations…

- Map Data Catalogue should:-
  - Be simple to read and relative to our organisation
  - Be easily accessible
  - Contain localised information (such as:- network location, restrictions on the use etc.)
  - Identify the key custodians
  - Include a system to ensure the information is kept up to date
  - Contribute towards improving GIS data accuracy
  - Include additional links to compliant metadata statements or additional information

**57% of GIS Data held by Cessnock City Council is externally owned**

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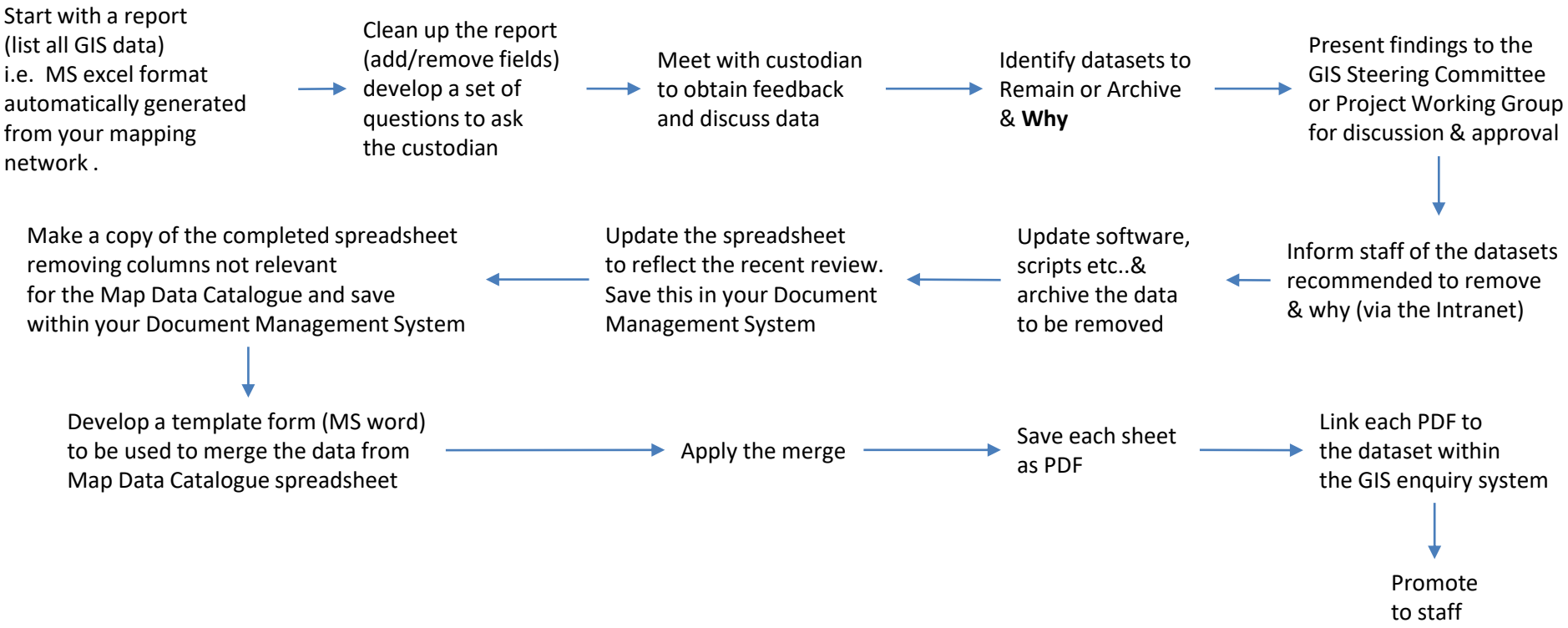
# How to Implement

## Compiling and Reviewing the GIS Data to Produce the Map Data Catalogue



# How to Implement…

- GIS Data Review – example questions:-
  - Custodian name
  - Managers name
  - Dataset name & location
  - Description of the dataset
  - Is this dataset still required – if not, please state reason
  - Could this dataset be combined with another existing dataset?
  - How was this dataset created?
  - External contact details
  - Can the data be displayed for public viewing?
  - How often should this dataset be updated and discuss the best methods
  - How confident is the custodian with regards to the accuracy level
  - Is the custodian happy for staff to make decisions based on this information?

# How to Implement…

- Map Data Catalogue- example template:-

| MAP DATA CATALOGUE | |
|---|---|
| **Dataset Name (Intramaps)** | Field to be populated via mail merge |
| **Purpose / About This Dataset** | Field to be populated via mail merge |
| **How is this dataset created / updated ?** | Field to be populated via mail merge |
| **Public Viewable ? Yes/No** | Field to be populated via mail merge |
| **Data Constraints / Restrictions** | Field to be populated via mail merge |
| **Council Staff Contact (Need more info?)** | Field to be populated via mail merge |
| **Data Ownership** | Field to be populated via mail merge |
| **Positional Accuracy** | Field to be populated via mail merge |
| **Data Location (Intramaps)** | Field to be populated via mail merge |
| **Link to Compliant Spatial Metadata Statement** | Field to be populated via mail merge |
| **Check Custodian before supplying data to Consultant? Yes/No** | Field to be populated via mail merge |
| **Data Location (Network)** | Field to be populated via mail merge |
| **Date Dataset Last Reviewed** | Field to be populated via mail merge |
| **Date Dataset Due for Review** | Field to be populated via mail merge |
| **Data Extent** | Field to be populated via mail merge |

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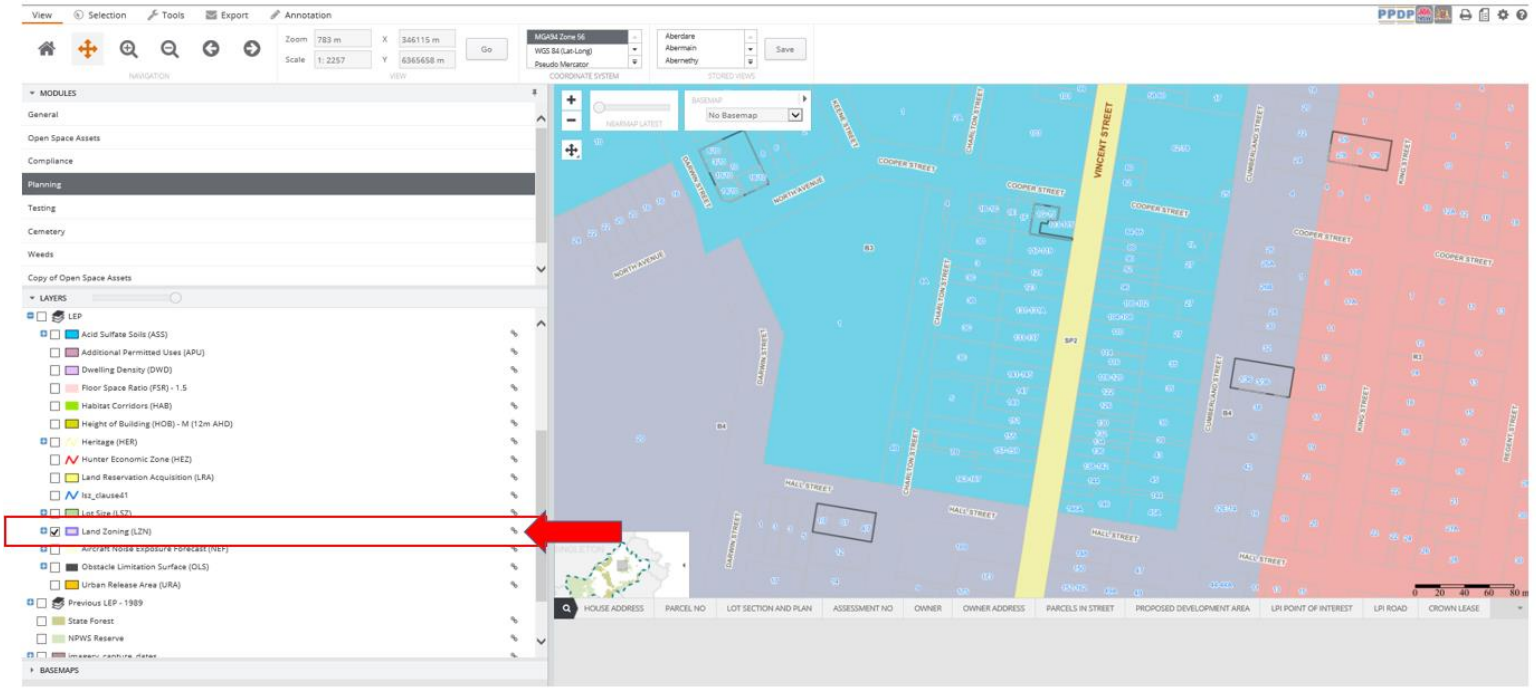
# How to Implement…

- Accessing the Map Data Catalogue:-



# How to Implement…

- Map Data Catalogue example:-

| MAP DATA CATALOGUE | |
|---|---|
| **Dataset Name (Intramaps)** | Land Zoning (LZN) |
| **Purpose / About This Dataset** | Consists of Polygon objects which depicts the Land Zoning boundaries. Attributes include the zone and Amendment number (where applicable). Land use zoning details the type of land uses available that are permitted (with or without consent) or prohibited in each zone for all areas under the Local Environmental Plan (LEP). Land use zoning is described in detail in part 2 - land use zoning and in the Land Use Table of the LEP. Zones define the legally permitted and prohibited uses of a piece of land, determining if a lot can be used for commercial, industrial, residential or other purposes. It defines what can and cannot be built on a piece of land. |
| **How is this dataset created / updated?** | Mapped by Councils GIS Staff following instructions from Councils Strategic Land Use Team and approved by NSW Department of Planning. Dataset was created in 2011. Amendments to the data will be included within the 'Amendment' field. Refer to the Legislation website for further details. Council also maintains a GIS dataset called 'Planning Proposals' which includes detailed information about every LEP Amendment. |
| **Public Viewable? Yes/No** | Yes |
| **Data Constraints / Restrictions** | Can be produced on a map for Public viewing. GIS Data can only be provided to Consultants contracted by Council. Refer to GIS Team for Data Licence Agreement. |
| **Council Staff Contact (Need more info?)** | Strategic Land Use Team |
| **Data Ownership** | NSW Department of Planning |
| **Positional Accuracy** | Positional Accuracy is relative to the Cadastre. |
| **Data Location (Intramaps)** | Planning > LEP > Land Zoning (LZN) |
| **Link to Compliant Spatial Metadata Statement** | [illegible] |
| **Check Custodian before supplying data to Consultant? Yes/No** | No |
| **Data Location (Network)** | M:\SQL DB_Linked TAB\General\lzn.TAB |
| **Date Dataset Last Reviewed** | 14/08/2019 |
| **Date Dataset Due for Review** | 10/1/2020 |
| **Data Extent** | Entire LGA |

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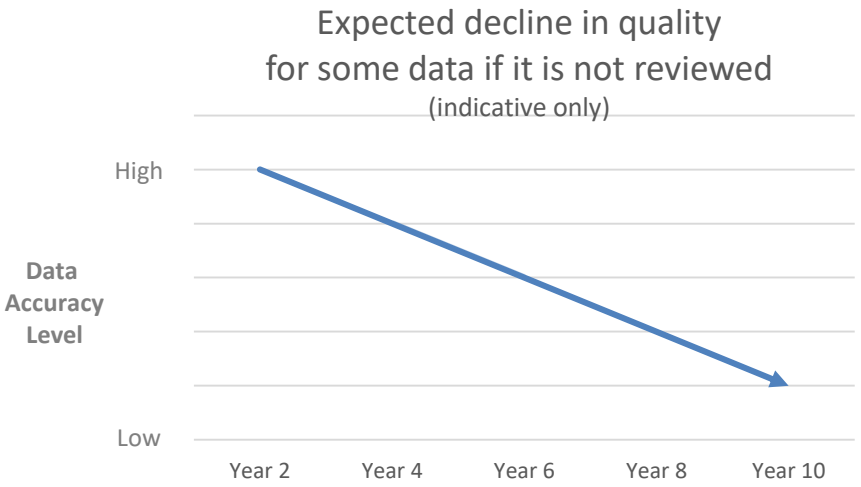
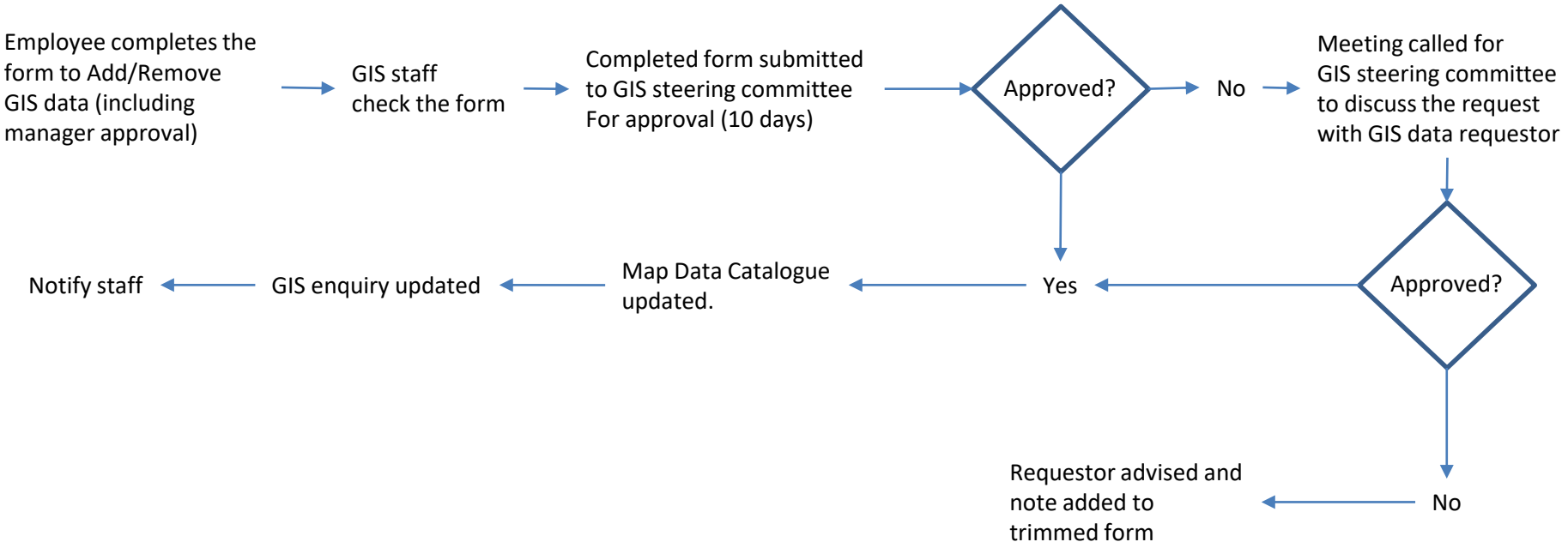
# Keeping the Map Data Catalogue Up to Date

- After the initial implementation, the accuracy of the Map Data Catalogue will be high:-
- However, if left static (with no system or review period) the accuracy level will decrease



# Keeping the Map Data Catalogue Up to Date

- Develop a Formal approval process for adding/removing GIS Data



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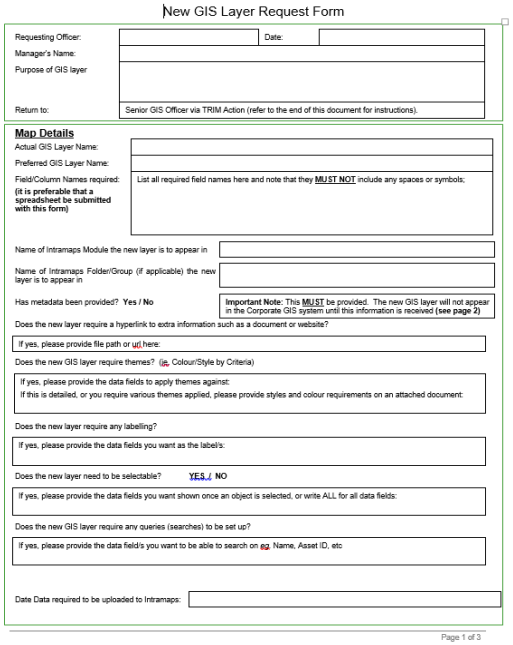
# Keeping the Map Data Catalogue Up to Date

- Example Forms – Adding a GIS layer



New GIS Layer Request Form

Requesting Officer: Date:

Manager's Name:

Purpose of GIS layer

Return to: Senior GIS Officer via TRIM Action (refer to the end of this document for instructions).

**Map Details**

Actual GIS Layer Name:

Preferred GIS Layer Name:

Field/Column Names required: (it is preferable that a spreadsheet be submitted with this form) — List all required field names here and note that they **MUST NOT** include any spaces or symbols;

Name of Intramaps Module the new layer is to appear in

Name of Intramaps Folder/Group (if applicable) the new layer is to appear in

Has metadata been provided? **Yes / No**

**Important Note:** This MUST be provided. The new GIS layer will not appear in the Corporate GIS system until this information is received **(see page 2)**

Does the new layer require a hyperlink to extra information such as a document or website?

If yes, please provide file path or url here:

Does the new GIS layer require themes? (ie. Colour/Style by Criteria)

If yes, please provide the data fields to apply themes against:
If this is detailed, or you require various themes applied, please provide styles and colour requirements on an attached document:

Does the new layer require any labelling?

If yes, please provide the data fields you want as the label/s:

Does the new layer need to be selectable? YES / NO

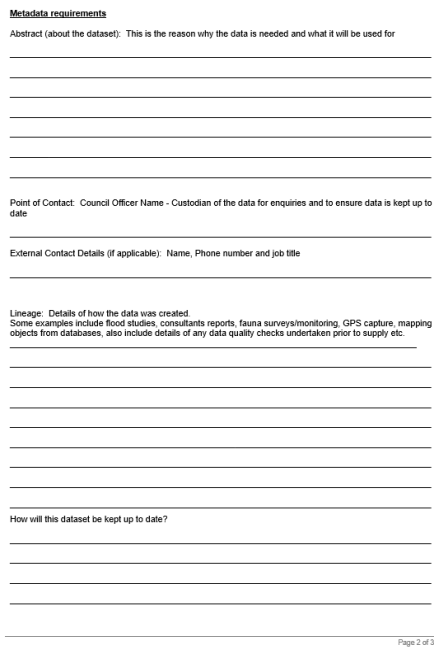
If yes, please provide the data fields you want shown once an object is selected, or write ALL for all data fields:

Does the new GIS layer require any queries (searches) to be set up?

If yes, please provide the data field/s you want to be able to search on eg. Name, Asset ID, etc

Date Data required to be uploaded to Intramaps:

Page 1 of 3



**Metadata requirements**

Abstract (about the dataset): This is the reason why the data is needed and what it will be used for

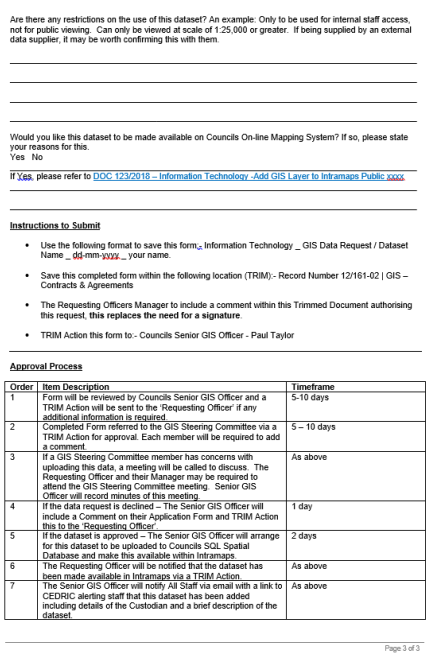
Point of Contact: Council Officer Name - Custodian of the data for enquiries and to ensure data is kept up to date

External Contact Details (if applicable): Name, Phone number and job title

Lineage: Details of how the data was created.
Some examples include flood studies, consultants reports, fauna surveys/monitoring, GPS capture, mapping objects from databases, also include details of any data quality checks undertaken prior to supply etc.

How will this dataset be kept up to date?

Page 2 of 3



Are there any restrictions on the use of this dataset? An example: Only to be used for internal staff access, not for public viewing. Can only be viewed at scale of 1:25,000 or greater. If being supplied by an external data supplier, it may be worth confirming this with them.

Would you like this dataset to be made available on Councils On-line Mapping System? If so, please state your reasons for this.
Yes No

If Yes, please refer to DOC 123/2018 – Information Technology -Add GIS Layer to Intramaps Public xxxx

**Instructions to Submit**

- Use the following format to save this form:- Information Technology _ GIS Data Request / Dataset Name _ dd-mm-yyyy _ your name.
- Save this completed form within the following location (TRIM):- Record Number 12/161-02 | GIS – Contracts & Agreements
- The Requesting Officers Manager to include a comment within this Trimmed Document authorising this request, **this replaces the need for a signature**.
- TRIM Action this form to:- Councils Senior GIS Officer - Paul Taylor

**Approval Process**

| Order | Item Description | Timeframe |
|---|---|---|
| 1 | Form will be reviewed by Councils Senior GIS Officer and a TRIM Action will be sent to the 'Requesting Officer' if any additional information is required. | 5-10 days |
| 2 | Completed Form referred to the GIS Steering Committee via a TRIM Action for approval. Each member will be required to add a comment. | 5 – 10 days |
| 3 | If a GIS Steering Committee member has concerns with uploading this data, a meeting will be called to discuss. The Requesting Officer and their Manager may be required to attend the GIS Steering Committee meeting. Senior GIS Officer will record minutes of this meeting. | As above |
| 4 | If the data request is declined – The Senior GIS Officer will include a Comment on their Application Form and TRIM Action this to the 'Requesting Officer'. | 1 day |
| 5 | If the dataset is approved – The Senior GIS Officer will arrange for this dataset to be uploaded to Councils SQL Spatial Database and make this available within Intramaps. | 2 days |
| 6 | The Requesting Officer will be notified that the dataset has been made available in Intramaps via a TRIM Action. | As above |
| 7 | The Senior GIS Officer will notify All Staff via email with a link to CEDRIC alerting staff that this dataset has been added including details of the Custodian and a brief description of the dataset. | As above |

Page 3 of 3

**Acknowledgement:**
These forms (whilst modified to suit Cessnock City Council) were originally designed and supplied by MidCoast Council

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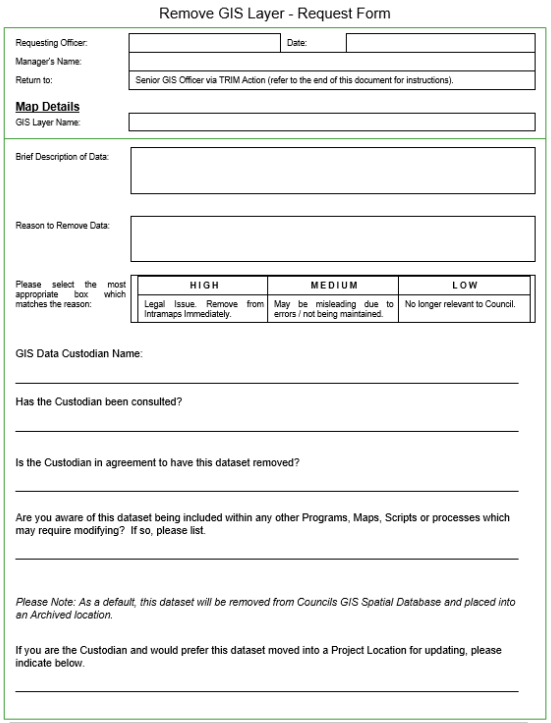
# Keeping the Map Data Catalogue Up to Date

- Example Forms – Removing a GIS layer



Remove GIS Layer - Request Form

| | | | |
|---|---|---|---|
| Requesting Officer: | | Date: | |
| Manager's Name: | | | |
| Return to: | Senior GIS Officer via TRIM Action (refer to the end of this document for instructions). | | |

**Map Details**

GIS Layer Name:

Brief Description of Data:

Reason to Remove Data:

Please select the most appropriate box which matches the reason:

| HIGH | MEDIUM | LOW |
|---|---|---|
| Legal Issue. Remove from Intramaps Immediately. | May be misleading due to errors / not being maintained. | No longer relevant to Council. |

GIS Data Custodian Name:

Has the Custodian been consulted?

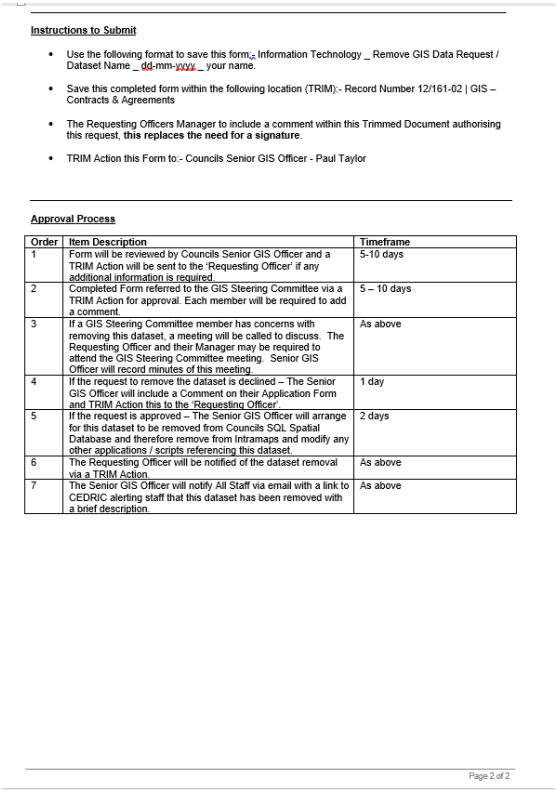
Is the Custodian in agreement to have this dataset removed?

Are you aware of this dataset being included within any other Programs, Maps, Scripts or processes which may require modifying? If so, please list.

*Please Note: As a default, this dataset will be removed from Councils GIS Spatial Database and placed into an Archived location.*

If you are the Custodian and would prefer this dataset moved into a Project Location for updating, please indicate below.

Page 1 of 2



**Instructions to Submit**

- Use the following format to save this form:- Information Technology _ Remove GIS Data Request / Dataset Name _ dd-mm-yyyy _ your name.
- Save this completed form within the following location (TRIM):- Record Number 12/161-02 | GIS – Contracts & Agreements
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| 3 | If a GIS Steering Committee member has concerns with removing this dataset, a meeting will be called to discuss. The Requesting Officer and their Manager may be required to attend the GIS Steering Committee meeting. Senior GIS Officer will record minutes of this meeting. | As above |
| 4 | If the request to remove the dataset is declined – The Senior GIS Officer will include a Comment on their Application Form and TRIM Action this to the 'Requesting Officer'. | 1 day |
| 5 | If the request is approved – The Senior GIS Officer will arrange for this dataset to be removed from Councils SQL Spatial Database and therefore remove from Intramaps and modify any other applications / scripts referencing this dataset. | 2 days |
| 6 | The Requesting Officer will be notified of the dataset removal via a TRIM Action. | As above |
| 7 | The Senior GIS Officer will notify All Staff via email with a link to CEDRIC alerting staff that this dataset has been removed with a brief description. | As above |

Page 2 of 2

**Acknowledgement:**
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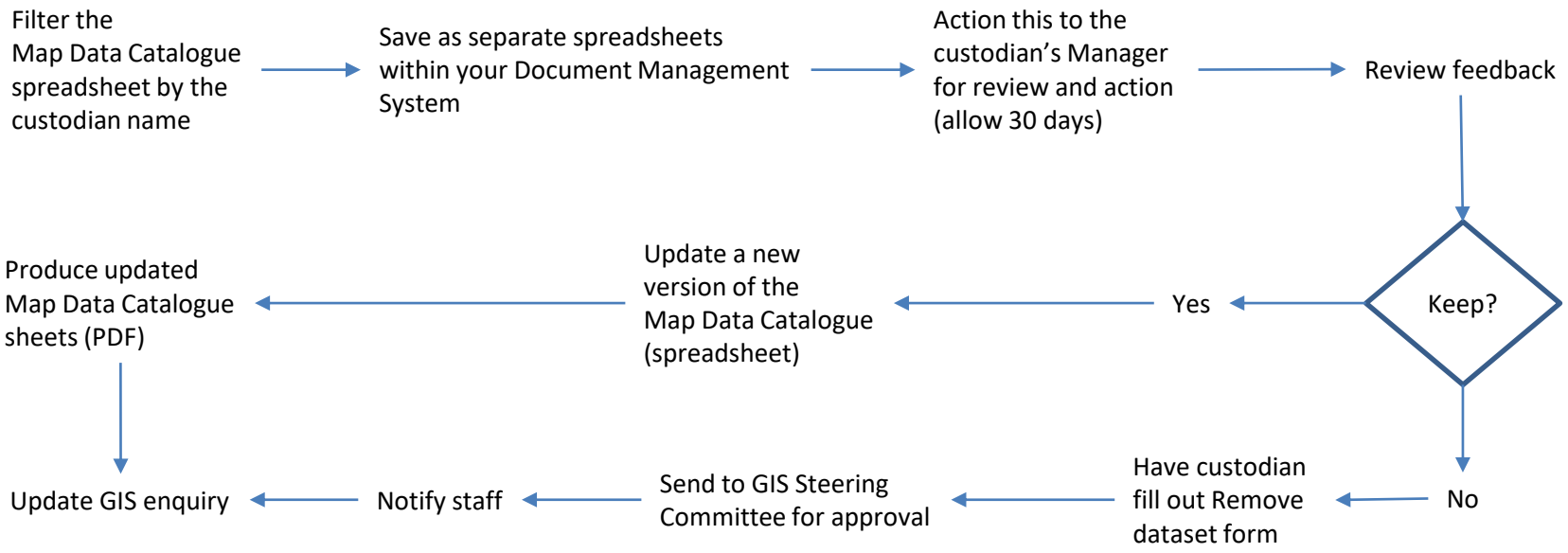
# Keeping the Map Data Catalogue Up to Date

- Determine a realistic review period (i.e. every 2 years)



# Promote the Map Data Catalogue…

- Email, intranet, newsletters
- During GIS enquiry training sessions
- Responding to enquiries
- It may take time for staff to start using this resource

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# Take Away Points..

- If you already have a working Metadata/Map Data Catalogue solution, keep using it ☺

If you don't..

- Start the project with a report of all your GIS data to review
- Determine the key metadata information which will benefit your Council
- Discuss the GIS data with the custodian
- Communicate this initiative to your staff
- Include links to existing compliant metadata or additional information (reports etc..)
- Ensure staff can easily access the Map Data Catalogue (include within the GIS enquiry)
- Ensure the Map Data Catalogue is easy to read and interpret (colour, large font,1-2 page, non-technical)
- Try using existing software and techniques to produce your outputs (word, excel, acrobat)
- Adopt an approval process for all incoming/outgoing GIS data
- Keep your Map Data Catalogue up to date by adopting a review period (i.e. every 2 years)
- Form a committee to approve incoming/outgoing GIS Data
- Document the process for future reference

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# What's Easy About this Metadata System?

- Uses software held by Council (excel, word, acrobat, document management system, email etc.)
- Using skills held by Council (data reporting, excel, word, mail merge skills, project management skills)
- Easy to setup and maintain
- Easy for staff to access and understand

# Producing GIS Metadata to benefit End-Users

## Thank You.

Paul Taylor
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6 November 2019