



# EPA Metadata Editor v5.0

Presented by:

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# Welcome

- Introducing the new metadata editor – EME 5.0!
- Purpose of the EME 5.0 is to make metadata editing easier and improve the quality of metadata records – as you create new metadata and edit old metadata use EME 5.0
  - No deadline for using the new tool
- Feedback welcome!

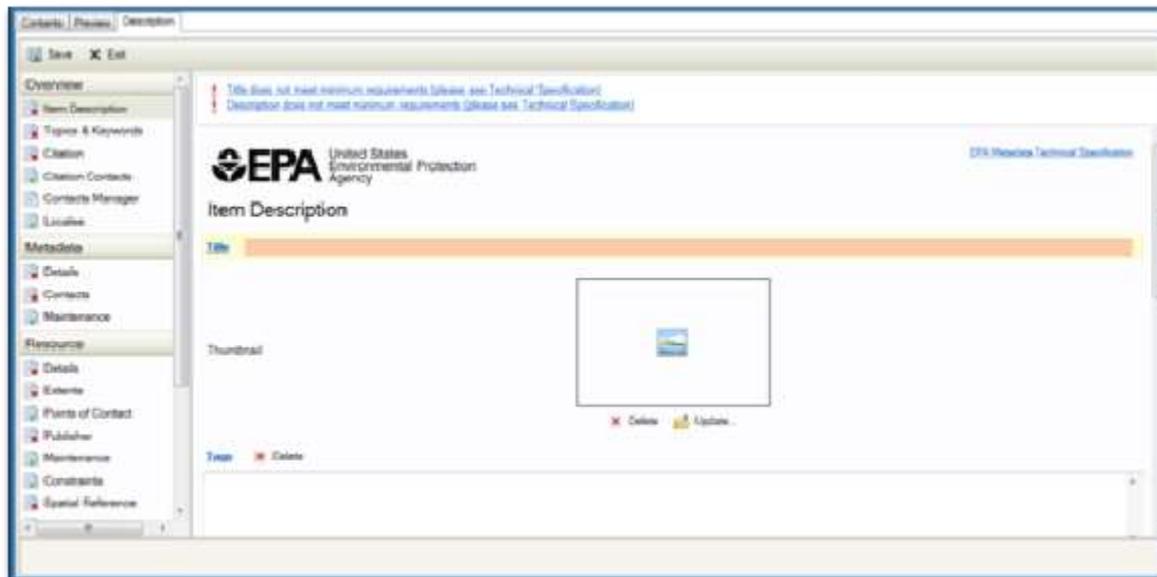


# Introduction to EME 5.0

- EME 5.0 – What's new?
- Getting Started with EME 5.0
- Validation Tips
- EME 5.0 - Demo
- EME 5.0 - Important URLs

## EME v5.0 New Features:

- It is integrated with Esri ArcGIS 10.4 and ArcCatalog metadata Editing Tools
- Fully implements the ISO metadata standard
- Metadata Field entries meet all Data.gov compliance requirements
- EPA specific dropdowns provided for many fields
- Mandatory fields highlighted





# EME v5.0: What's New?

## Benefits of using EME 5.0:

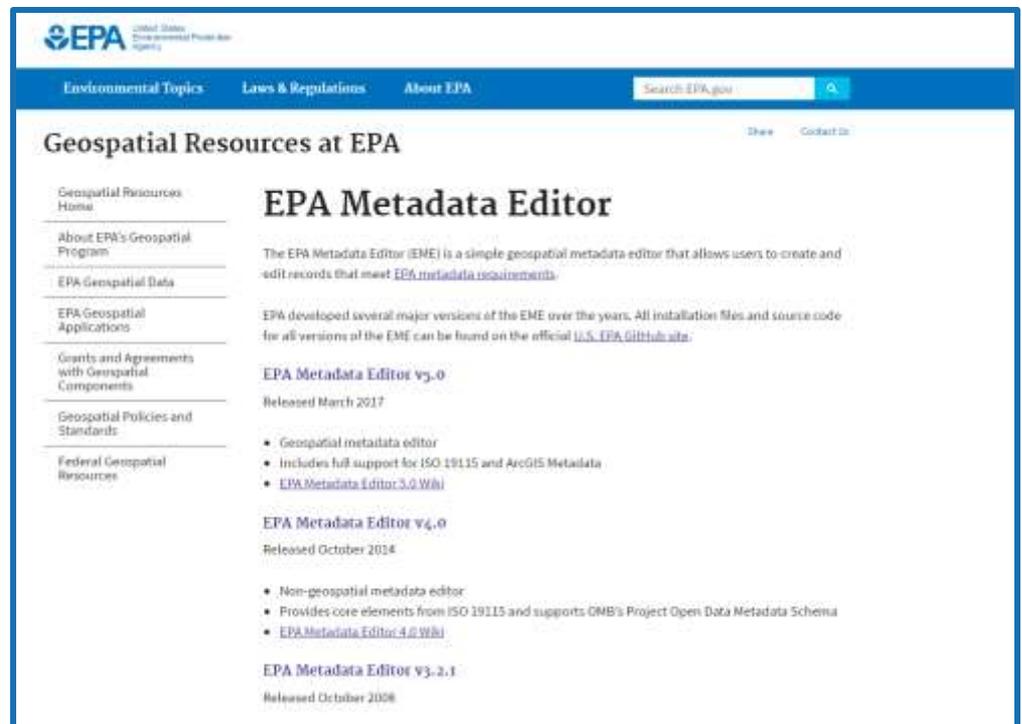
1. Integration of metadata with geospatial datasets
  - Bounding box coordinates
  - Spatial reference
  - Spatial data representation
  - Attributes
  - Geoprocessing history
2. Real-time validation
3. Best practices guidance included in tool



# EME v5.0: Getting Started

## Download EME 5.0:

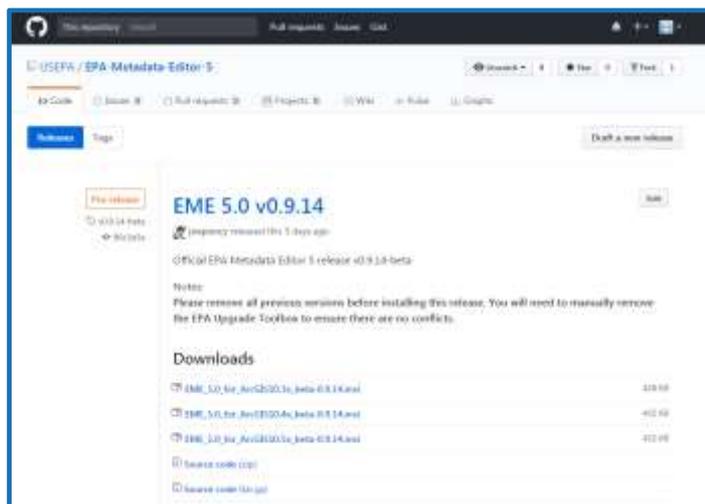
1. [Visit New EME Website!](#)
2. [Download Installation package](#)



The screenshot shows the EPA website's 'Geospatial Resources at EPA' page. The header includes the EPA logo, navigation links for 'Environmental Topics', 'Laws & Regulations', and 'About EPA', and a search bar. The main content area is titled 'EPA Metadata Editor' and features a sidebar with links to 'Geospatial Resources Home', 'About EPA's Geospatial Program', 'EPA Geospatial Data', 'EPA Geospatial Applications', 'Grants and Agreements with Geospatial Components', 'Geospatial Policies and Standards', and 'Federal Geospatial Resources'. The main text describes the EME as a simple geospatial metadata editor and lists three versions: EPA Metadata Editor v5.0 (released March 2017), EPA Metadata Editor v4.0 (released October 2014), and EPA Metadata Editor v3.2.1 (released October 2008). Each version includes a list of features and a link to its respective website.

## Installing EME 5.0:

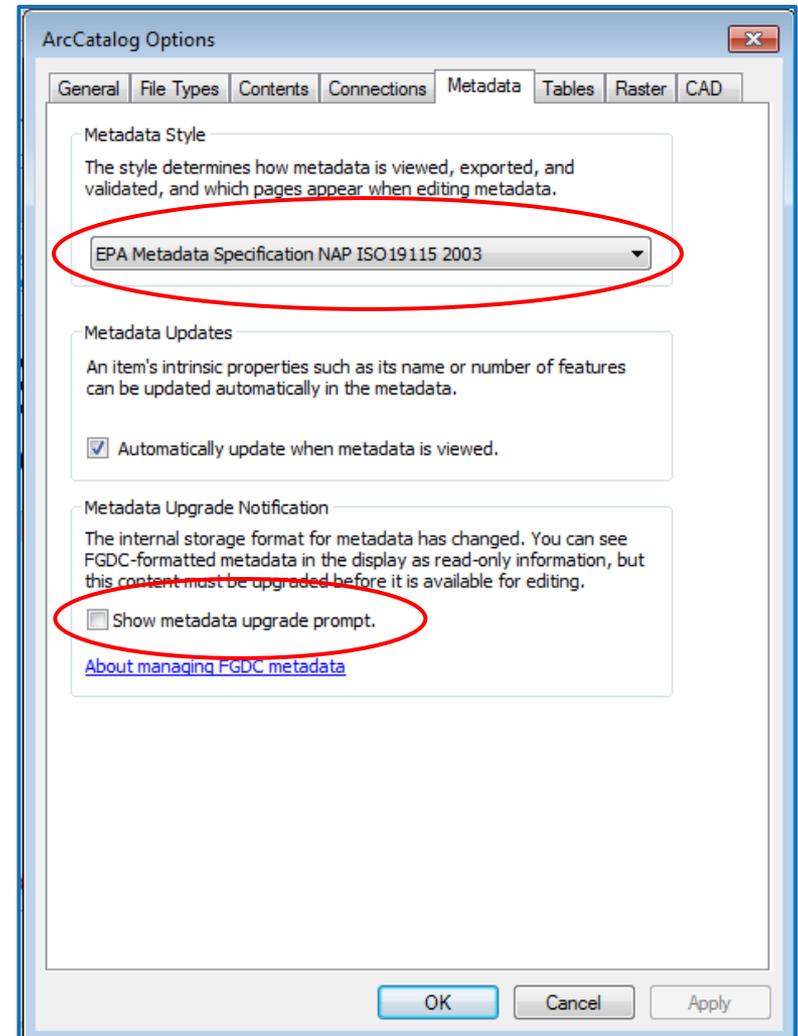
1. Uninstall old versions of EME 5.0
2. Run the installation file
3. It is not necessary to uninstall versions of EME prior to 5.0



*Note: You may receive a security notice when installing EME 5.0, this can be ignored. The install package was scanned and no risks were identified.*

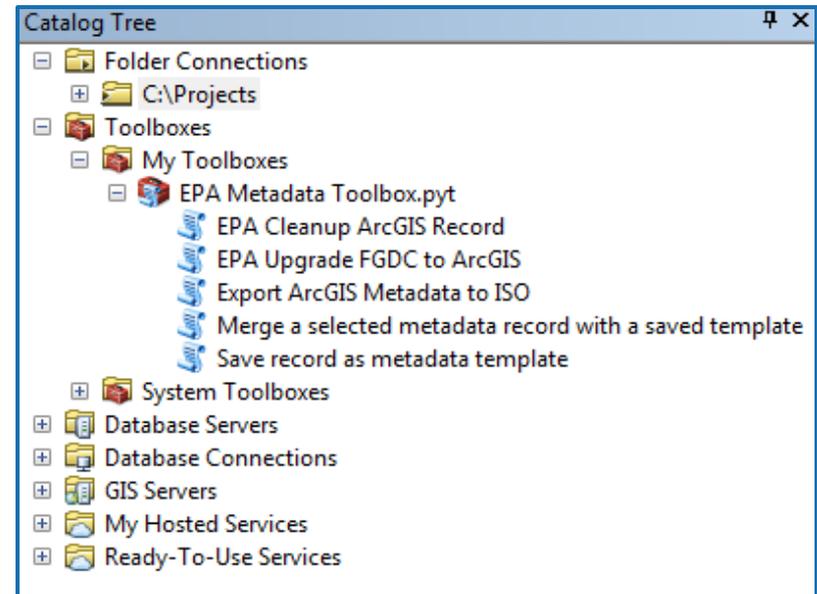
## Enable New EME Tools:

1. Open ArcCatalog → Customize menu → ArcCatalog Options → Metadata
2. Select EPA Metadata Specification NAP ISO 19115 2003 as your Metadata Style
3. Uncheck box “Show metadata upgrade prompt”



## EPA Metadata Toolbox:

- Appears in “My Toolboxes” folder in the Catalog Tree
- Contains 5 Tools:
  - EPA Cleanup ArcGIS Record
  - EPA Upgrade FGDC to ArcGIS
  - Export ArcGIS Metadata to ISO
  - Merge a selected metadata record with a saved template
  - Save record as metadata template

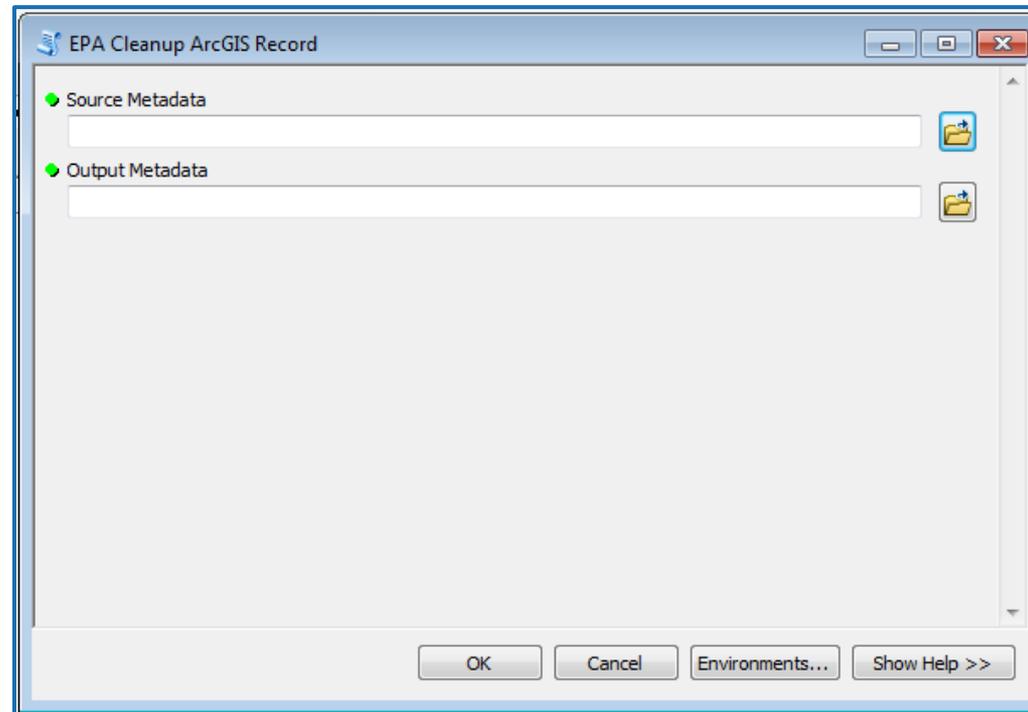




# EME v5.0: Getting Started

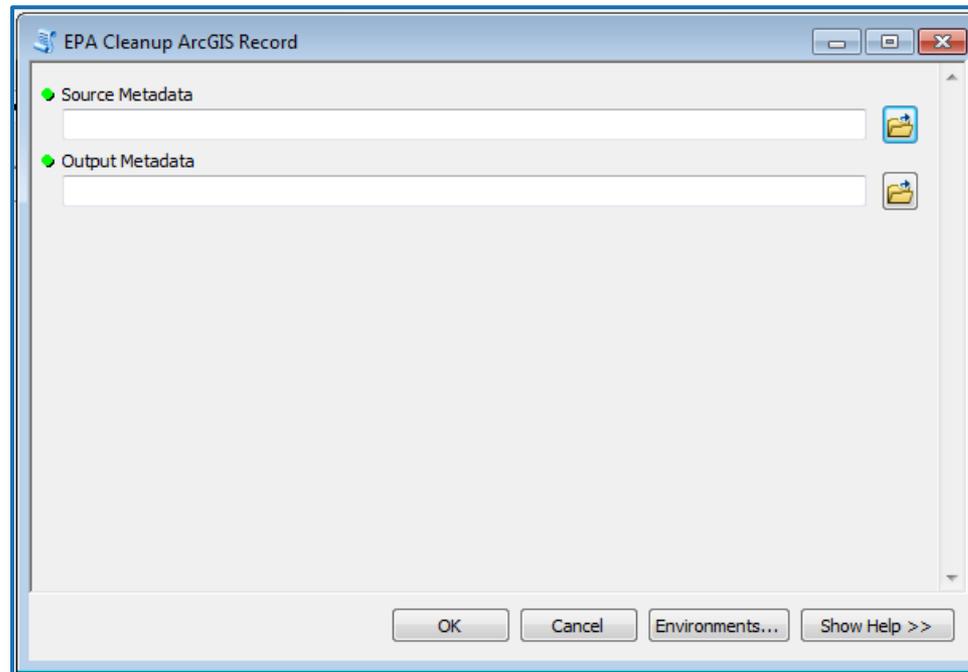
## EPA Metadata Toolbox: *EPA Cleanup ArcGIS Record*

- For use when a metadata record has already been upgraded from FGDC CSDGM to ArcGIS format using the default Esri Upgrade Metadata tool.



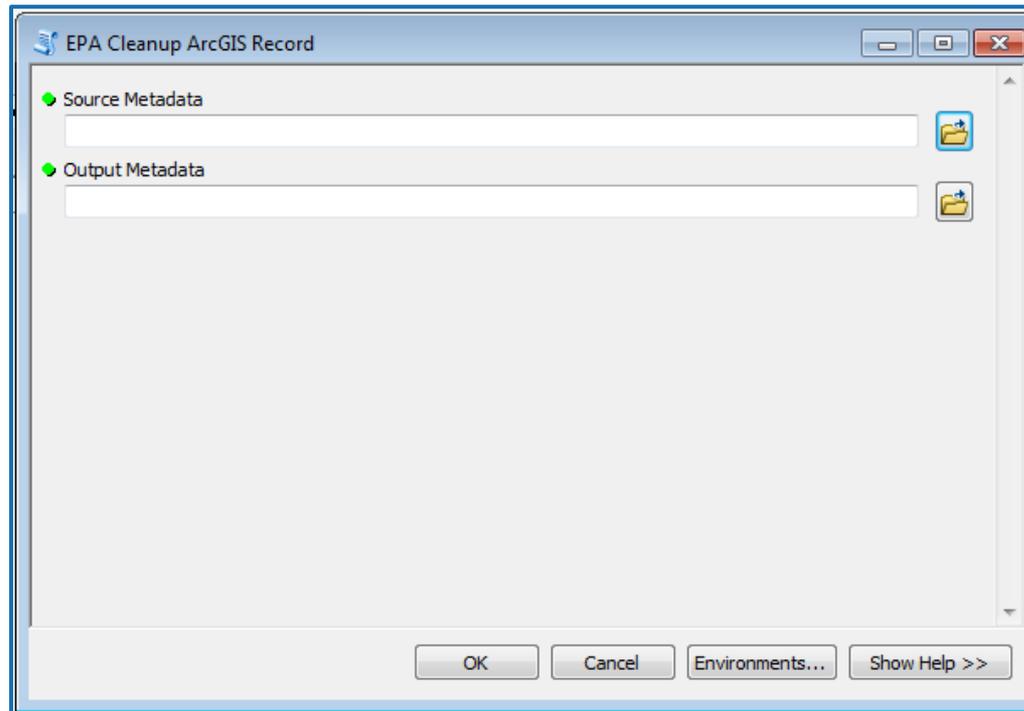
## EPA Metadata Toolbox: *EPA Upgrade FGDC to ArcGIS*

- Used to upgrade all legacy FGDC CSDGM records to ArcGIS format.
- Aligns records with the EPA Metadata Technical Specification
- Ensures embedded UUIDs are recognized
- Removes legacy elements



## EPA Metadata Toolbox: *Export ArcGIS Metadata to ISO*

- Streamlines exporting ArcGIS metadata to compliant ISO 19115
- Equivalent to using the Export Metadata tool with ArcGIS2ISO19139 as the translator

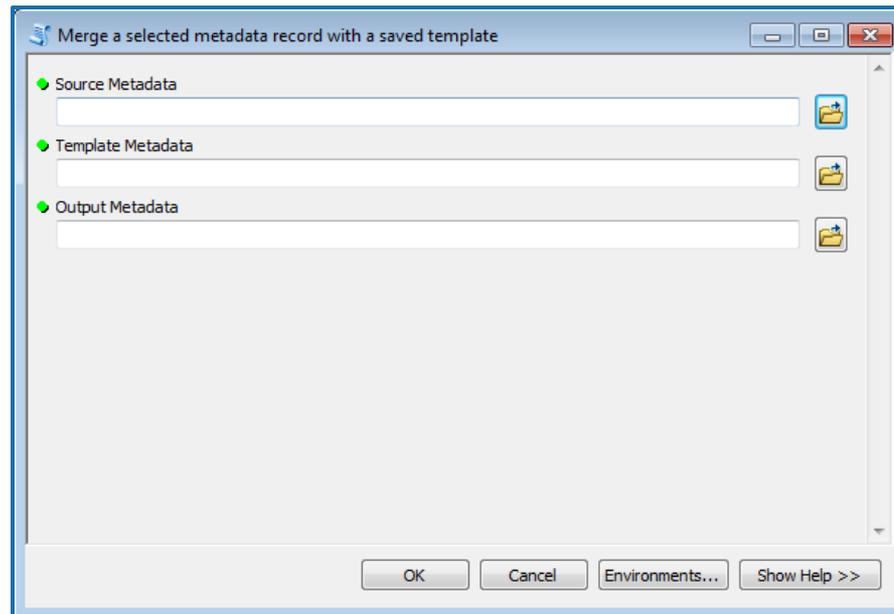


## EPA Metadata Toolbox:

### *Merge a selected metadata record with a saved template*

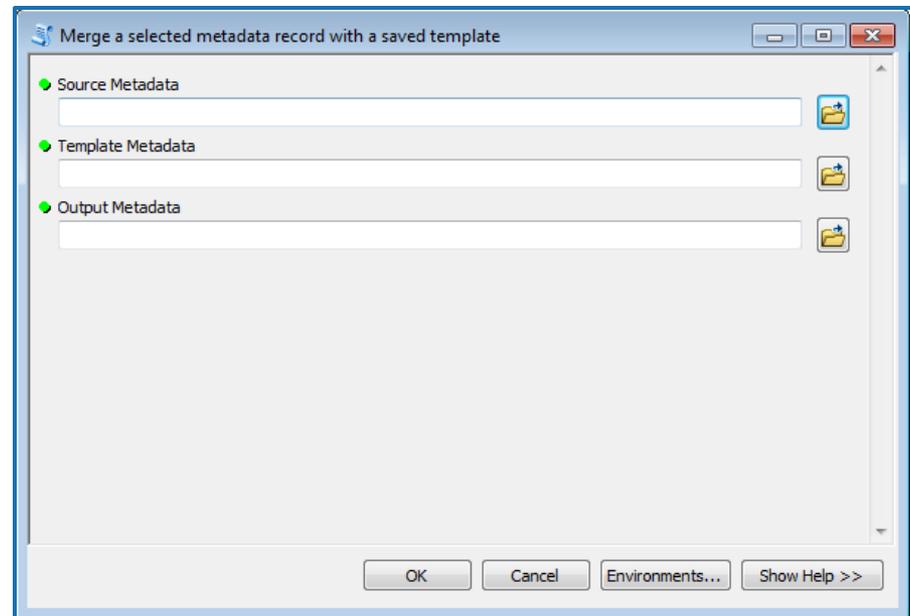
- Merges a selected metadata record with elements from a saved template
- Elements from the template record will overwrite their equivalents in the selected record
- Replaces only those elements that are common across many records

*Note: caution is urged  
when using this tool*



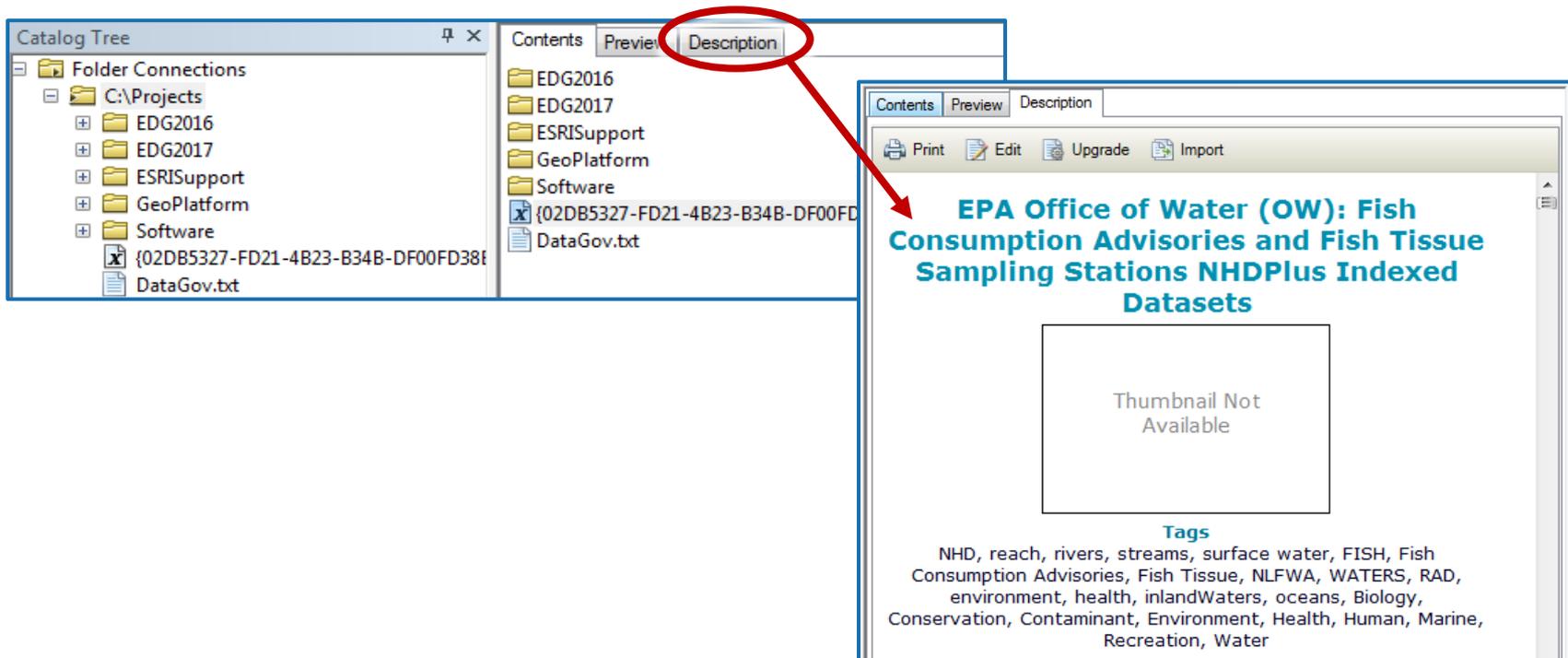
## EPA Metadata Toolbox: *Save record as metadata template*

- Saves a metadata record as a reusable template
- Excludes elements that are unique in every record
  - Examples:
    - Title
    - Abstract
    - UUID
- Keeps common elements
  - Examples:
    - Metadata Contact
    - Publisher
    - Distribution Contact



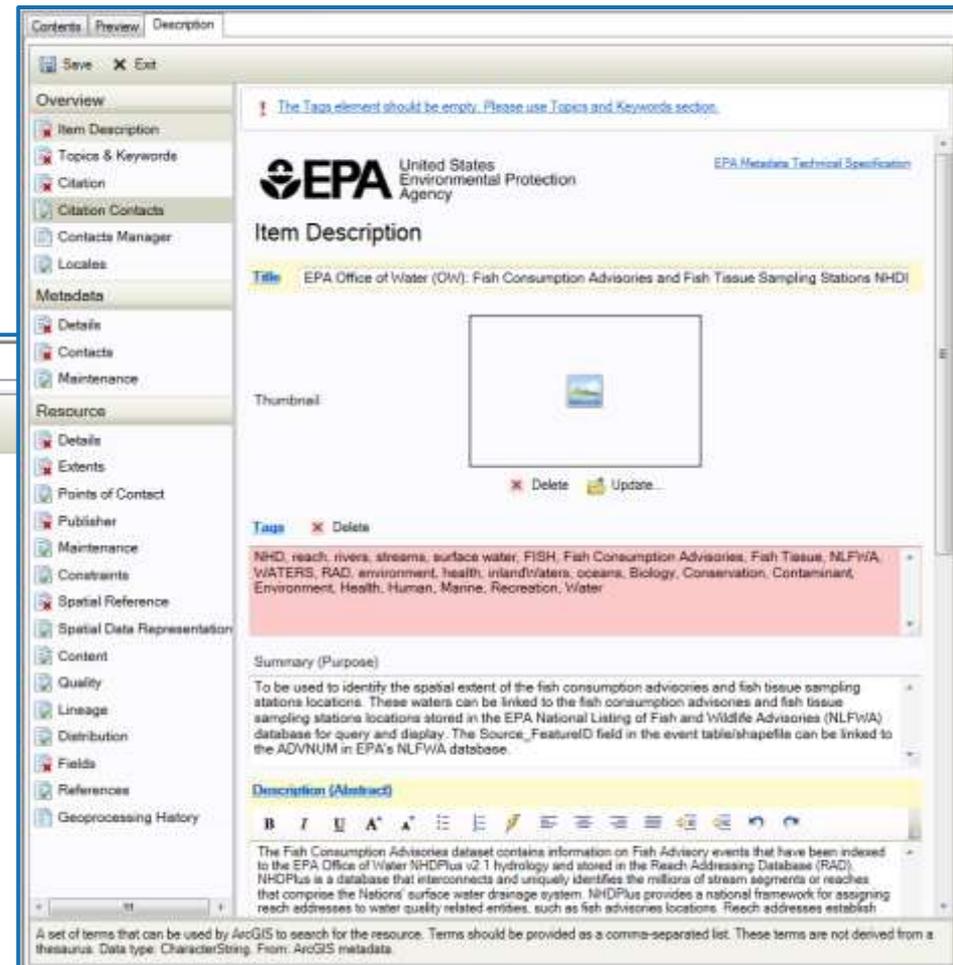
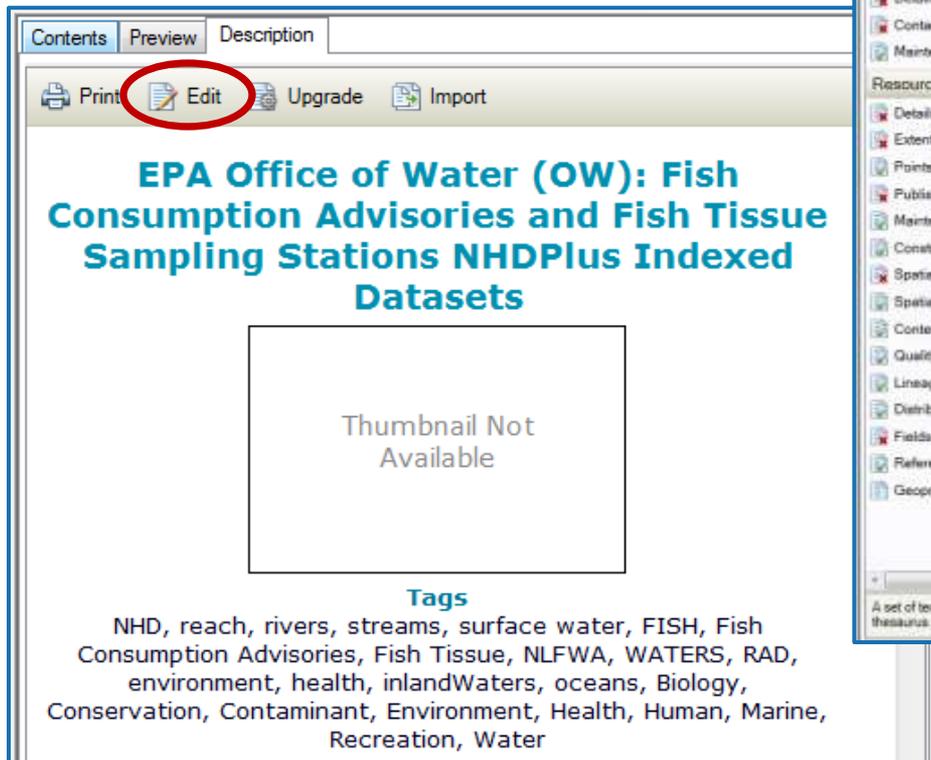
## EME 5.0 Interface :

- To Edit Metadata using EME 5.0
  1. Navigate to an XML file or a GeoSpatial Dataset and click the **Description Tab**
    - Allows viewing of metadata records in ArcGIS metadata format



## EME 5.0 Interface :

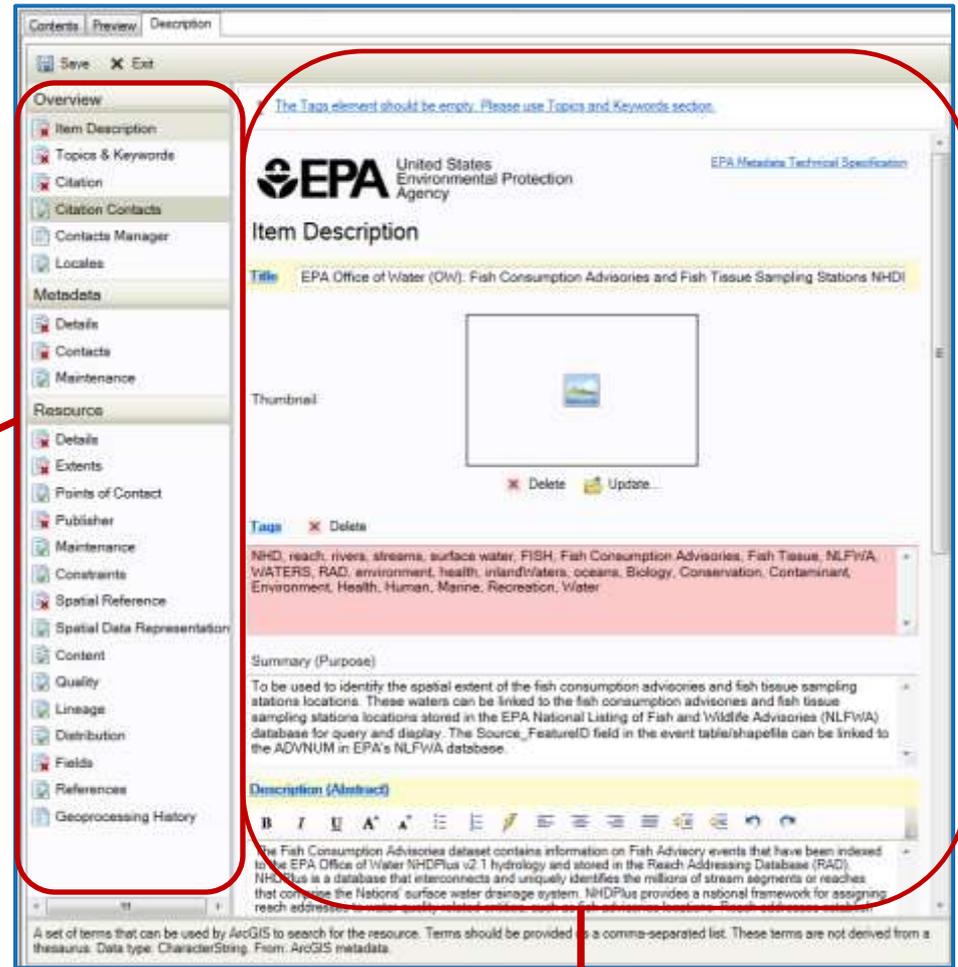
- To Edit Metadata using EME 5.0
  - Click the *Edit* button
    - Opens EME 5.0



## EME 5.0 Interface :

- Organized within ArcCatalog in a Table of Contents
- Clicking on a page in the table of contents displays a set of metadata fields in the *Editing pane*

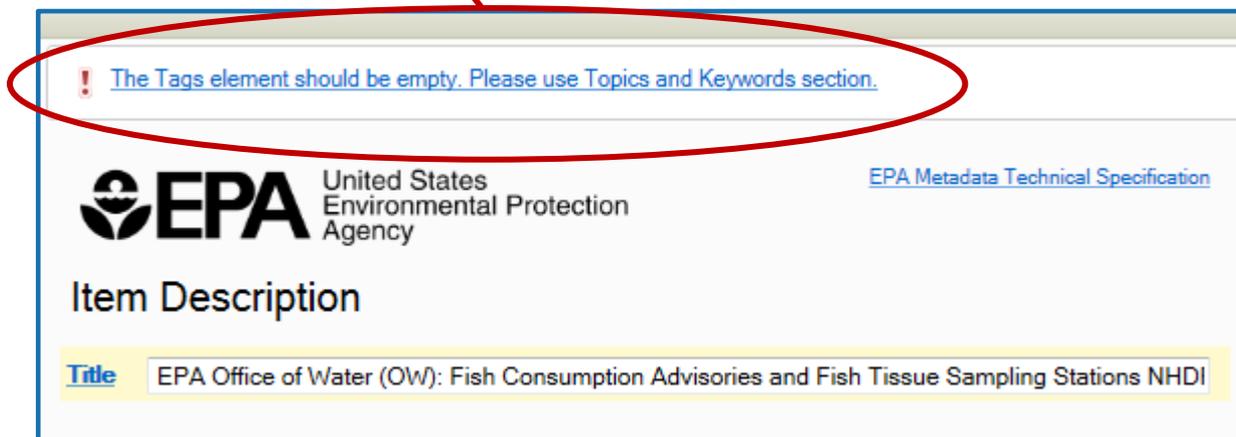
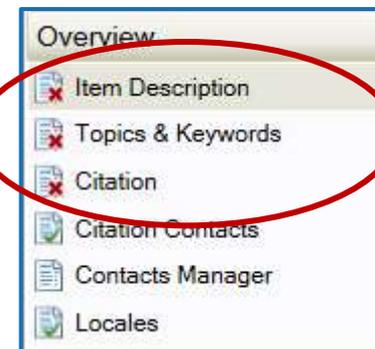
Table of Contents containing pages to be edited



Editing Pane

## EME 5.0 Interface :

- Pages in the Table of Contents, symbolized with a Red X illustrate an error in the corresponding metadata fields
- Help text is found at the top of the *Editing pane* indicating the fields in the selected page that do not meet minimum metadata requirements

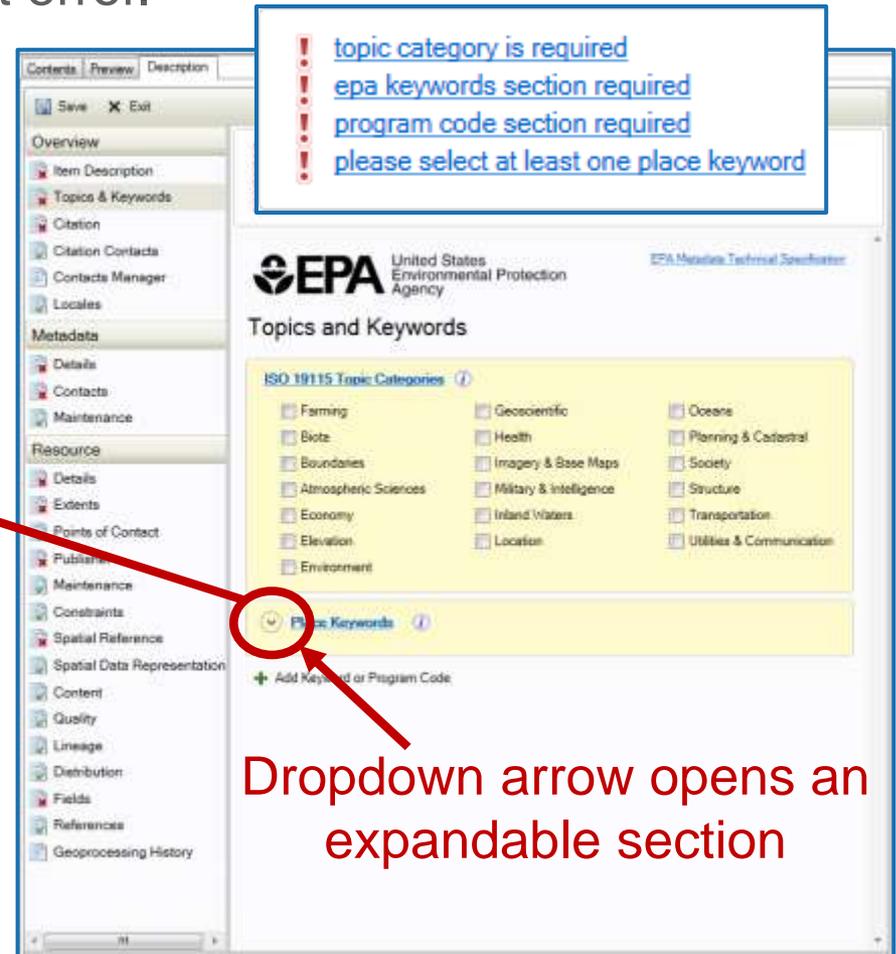




# EME v5.0: Getting Started

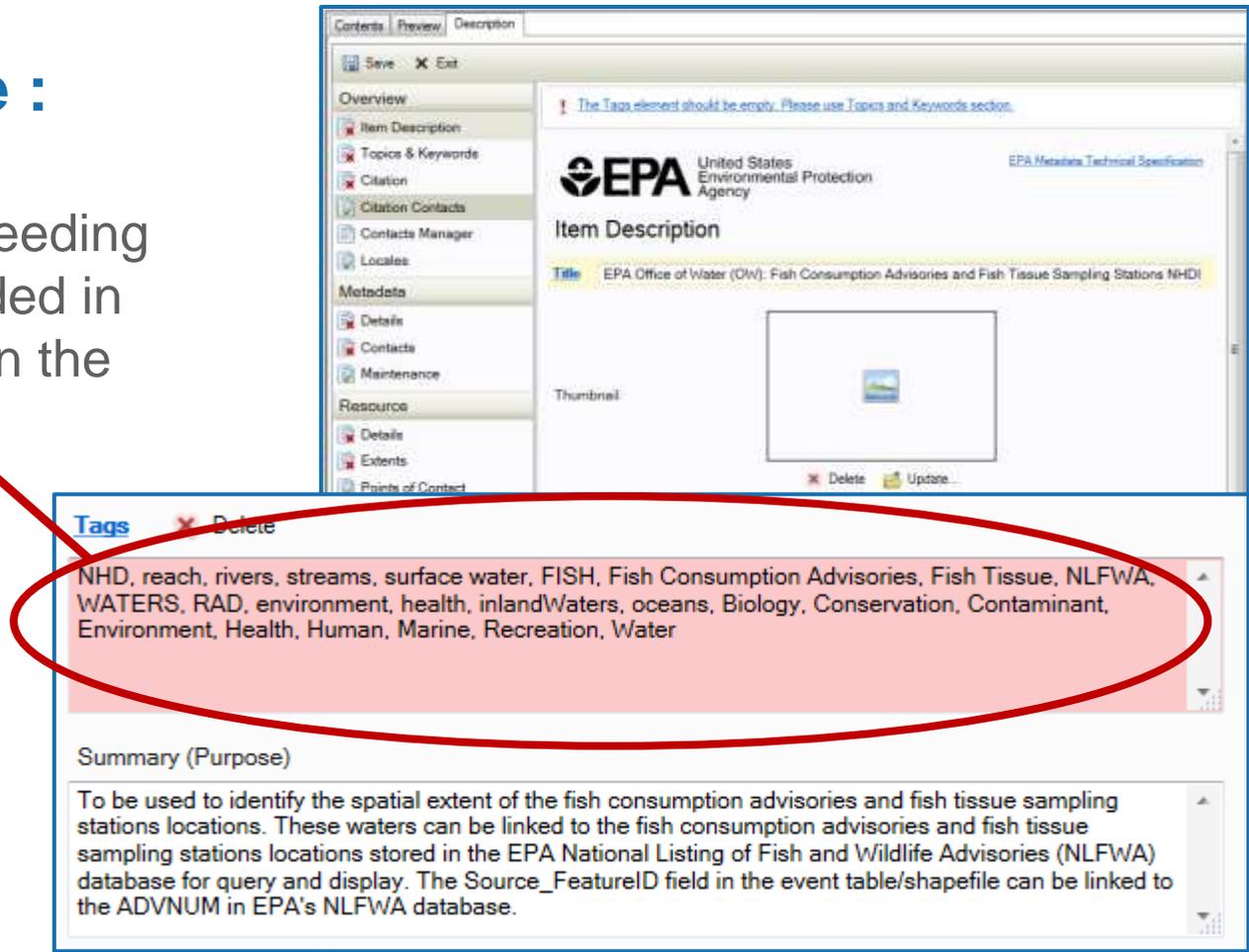
## EME 5.0 Interface :

- Errors may not be immediately visible and instead a section needs to be expanded to find the element error.



## EME 5.0 Interface :

- Invalid text fields needing correction are shaded in pink or peach within the *Editing pane*



The screenshot displays the EME 5.0 interface. The main window is titled 'Contents | Preview | Description' and contains a sidebar with navigation options like 'Overview', 'Item Description', 'Topics & Keywords', 'Citation', 'Citation Contacts', 'Contacts Manager', 'Locales', 'Metadata', 'Details', 'Contacts', 'Maintenance', 'Resource', 'Details', 'Extents', and 'Points of Contact'. The main content area shows the 'Item Description' for 'EPA Office of Water (OW): Fish Consumption Advisories and Fish Tissue Sampling Stations NHD'. Below this, there is a 'Thumbnail' section with a placeholder image and 'Delete' and 'Update...' buttons. A red arrow points from the text in the list to a 'Tags' field in the 'Editing pane' at the bottom. This field is shaded pink and contains the text: 'NHD, reach, rivers, streams, surface water, FISH, Fish Consumption Advisories, Fish Tissue, NLFWA, WATERS, RAD, environment, health, inlandWaters, oceans, Biology, Conservation, Contaminant, Environment, Health, Human, Marine, Recreation, Water'. Below the tags field is a 'Summary (Purpose)' section with a text area containing the following text: 'To be used to identify the spatial extent of the fish consumption advisories and fish tissue sampling stations locations. These waters can be linked to the fish consumption advisories and fish tissue sampling stations locations stored in the EPA National Listing of Fish and Wildlife Advisories (NLFWA) database for query and display. The Source\_FeatureID field in the event table/shapefile can be linked to the ADVNUM in EPA's NLFWA database.'

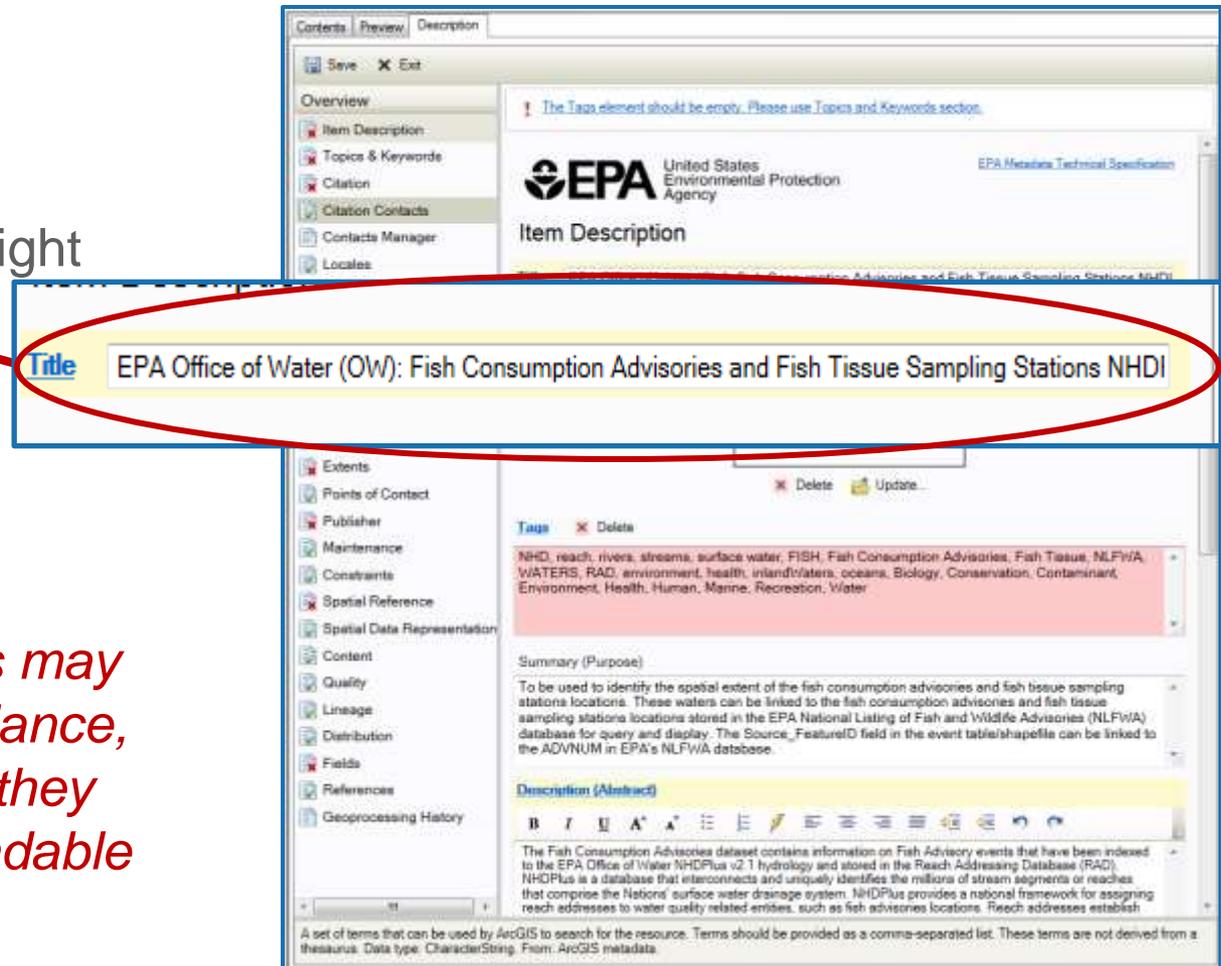
*Note: dropdown and date fields do not support this coloring*



# EME v5.0: Getting Started

## EME 5.0 Interface :

- Mandatory metadata fields are shaded in light yellow.



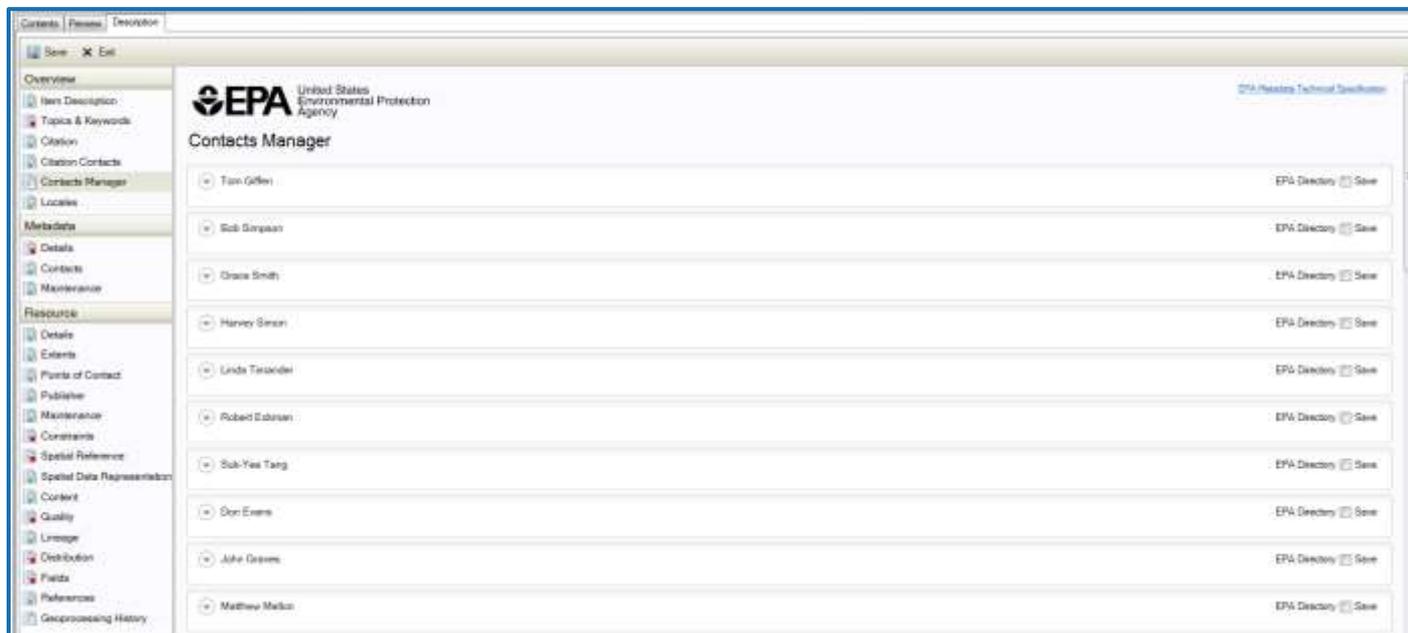
*Note: mandatory fields may not be visible at first glance, because it is possible they are found in an expandable section*



# EME v5.0: Getting Started

## Contacts Manager:

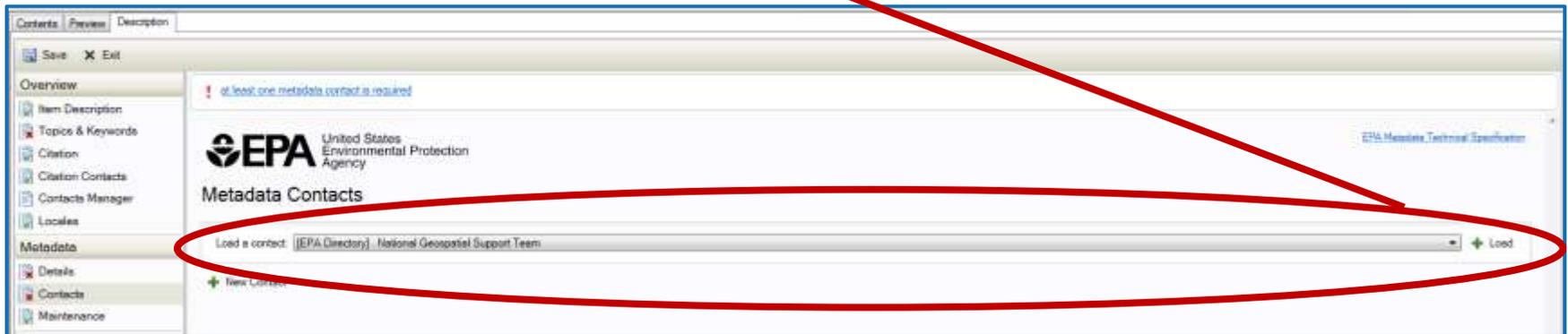
- Provides a list of pre-populated EPA Contacts
- Lists any contacts that are included in the current metadata document
- Local Contacts file can be shared with Colleagues



*Note: Contact Details cannot be edited in the Contacts Manager page*

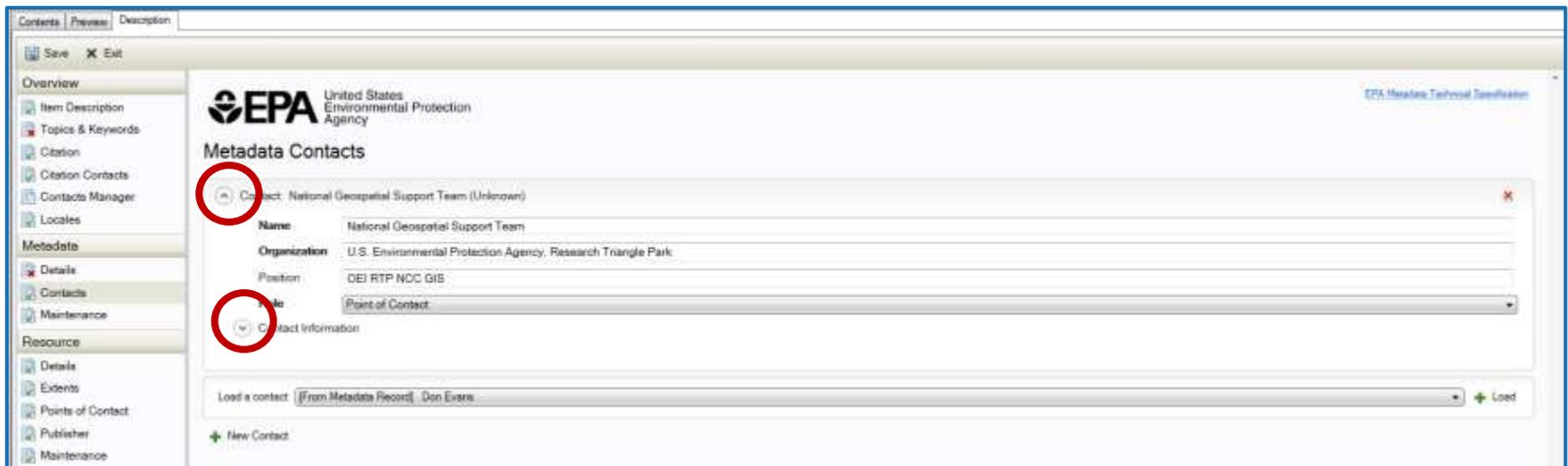
## Contacts Manager – Editing Contacts:

1. Add contact to the metadata document in one of the following locations:
  - Citation Contacts
  - Metadata Contacts
  - Resource Points of Contact
2. Select the name of the metadata contact from the dropdown list and click Load.



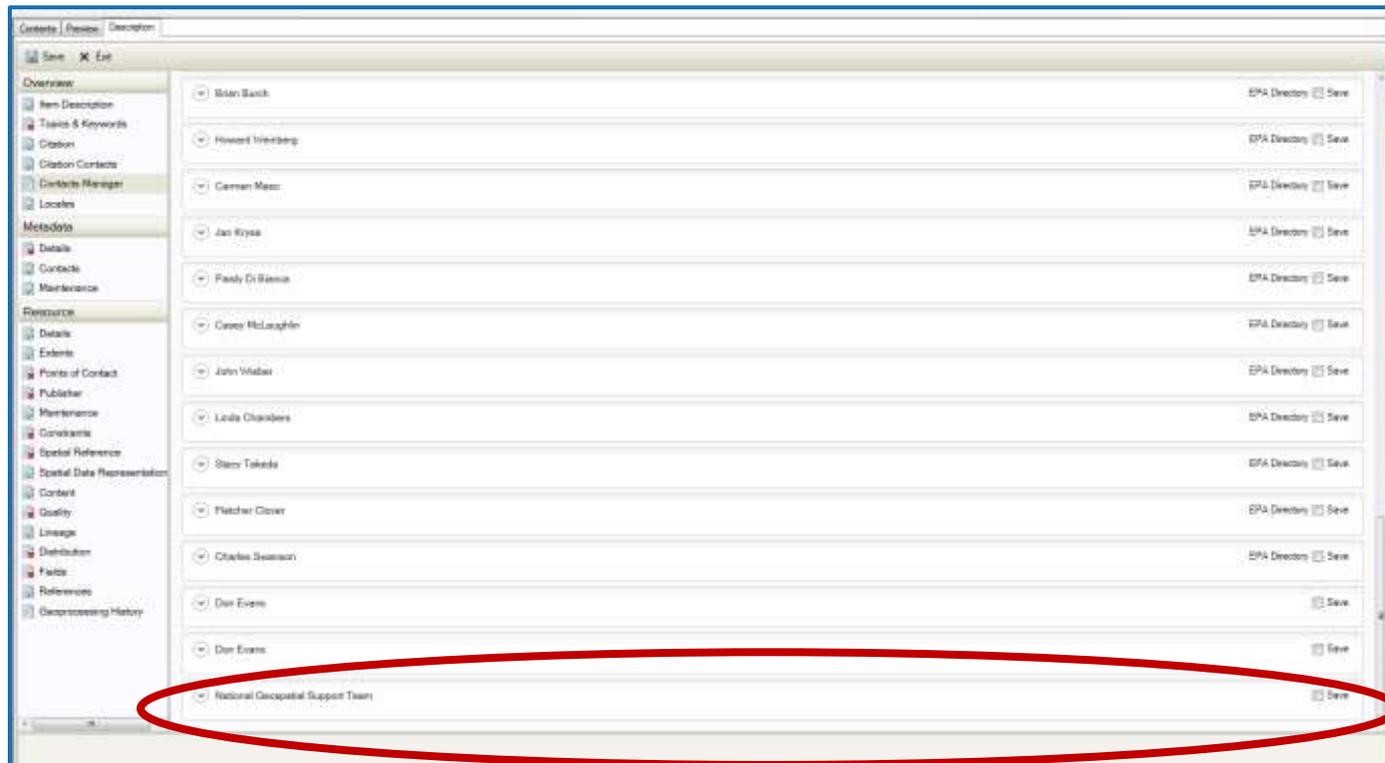
## Contacts Manager – Editing Contacts:

3. When a contact is loaded, you can expand the section by clicking each down arrow



## Contacts Manager – Editing Contacts:

4. New version of contact will appear at the bottom of the Contacts Manager Page

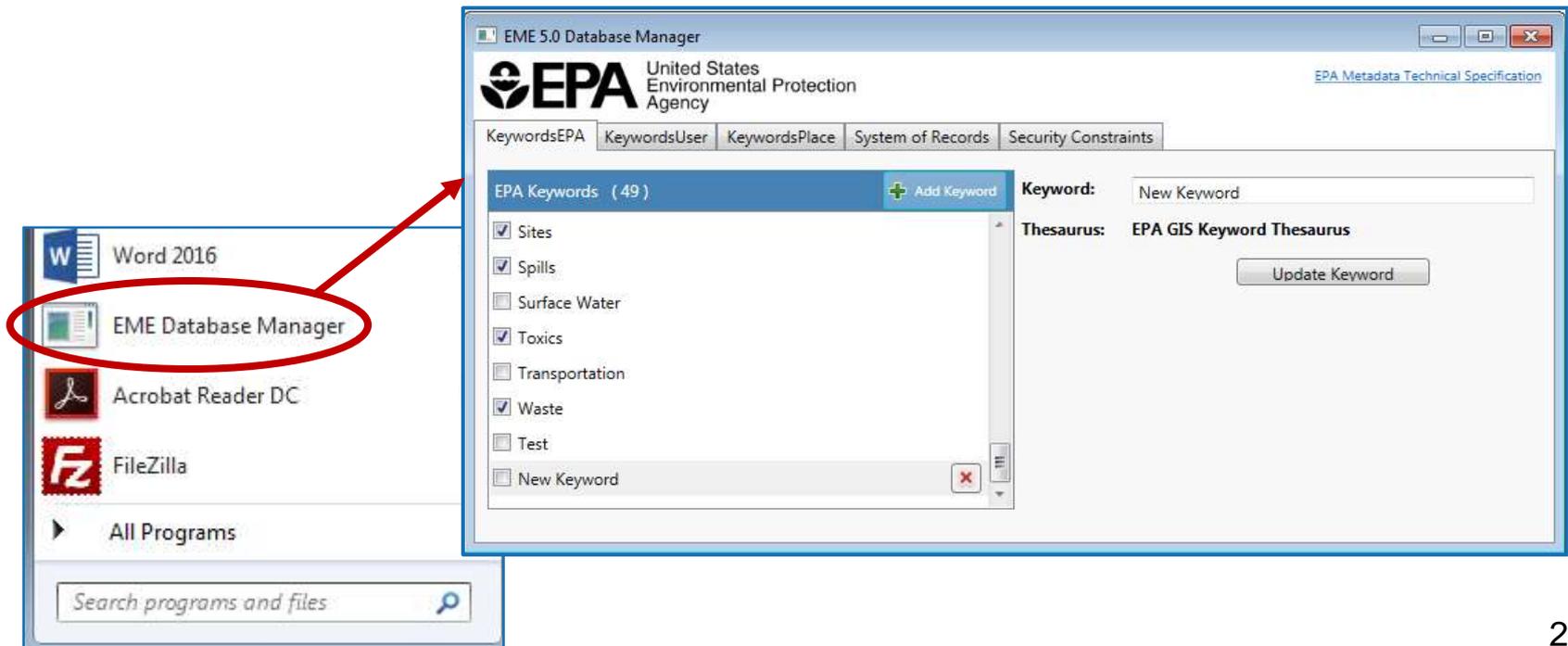




# EME v5.0: Getting Started

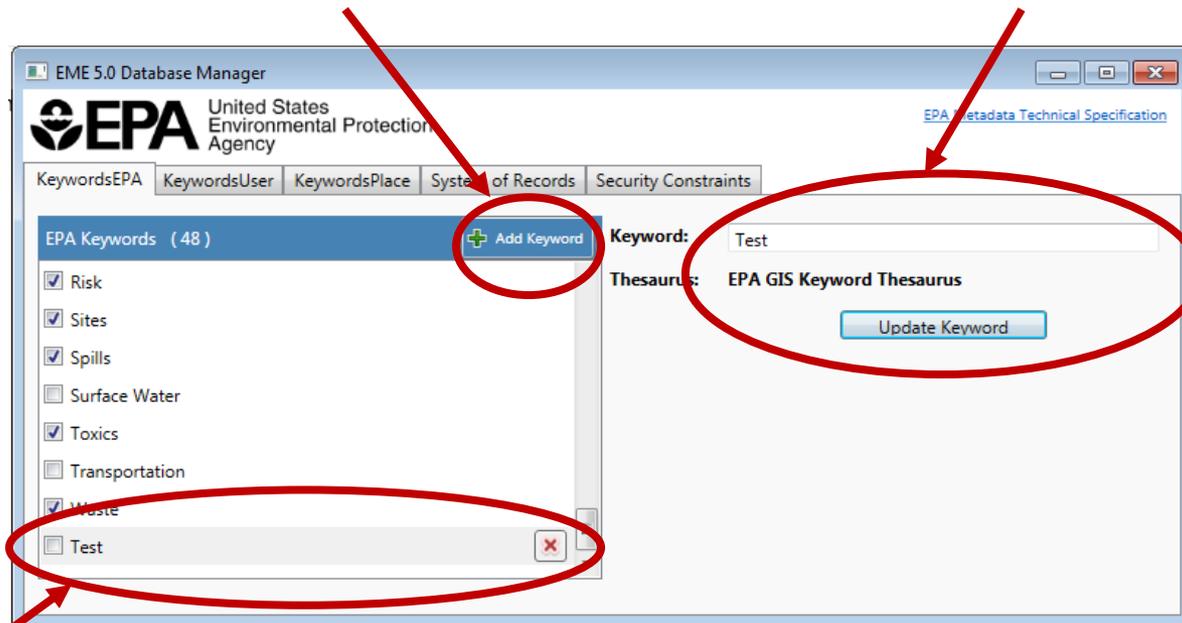
## Database Manager

- No longer an MS Access Database
- Standalone Application found in Start Menu
- Used to manage Keywords, System of Records, and Security Constraints fields



## Database Manager – Editing Defaults

1. Click *Add Keyword* or *Add Constraint* (depending on tab)
2. Add Keyword or Constraint in text box and click *Update*



3. New entry appears at the bottom of the defaults list



# EME v5.0: Getting Started

## EME 5.0 Help:

- Mandatory fields link directly to their detailed guidance in the [EPA Metadata Technical Specification](#).

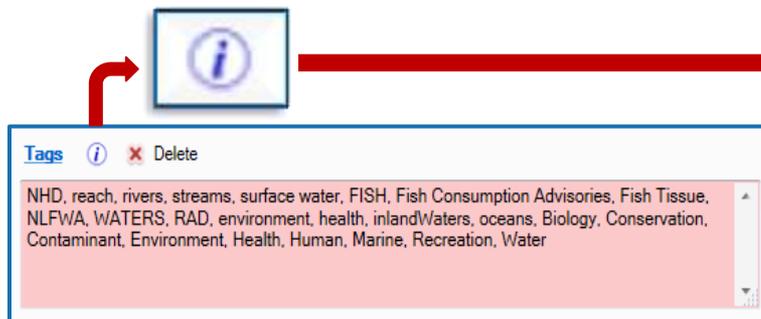
Field	Title
Required?	Always
Guidance	<p>Titles should be succinct yet descriptive including the topic, date where relevant, temporal info, geography and related programs in a way that distinguishes them from other, similar resources. To this end, EPA recommends the following template:</p> <p>{Subject, Geographic Extent, Relevant Time Period, Data Owner/Provider, Office/Region/Research Lab of Data Owner}</p> <p>Any individual component of this title template may be omitted if not applicable. For example, there is no need to include a date if data are frequently or continuously updated. Similarly, if the geographic extent is implicit in the subject, i.e. National Hydrography Dataset, it may be omitted provided that the actual extent of the data matches the extent implied in the title (an example of a dataset whose actual extent does not match the implicitly titled extent would be National Hydrography Dataset clipped to a given state). Geographic Extent should always refer to a place name, not a bounding box or coordinates. Spell out any acronyms.</p>
Accepted Values	Plain Text
Example	"Toxics Release Inventory (TRI) Locations, Oklahoma, 2012, EPA OIAA, EPA REG 65 WQPD"
ArcCatalog Editor Location	Overview > Item Description > Title and Overview > Citation > Titles > Title
ArcGIS Metadata XPath	/metadata/dataIdInfo/idCitation/resTitle

The screenshot shows the EPA logo and the text "United States Environmental Protection Agency". Below this is the heading "Item Description". In the top right corner, there is a link labeled "EPA Metadata Technical Specification" which is circled in red. Below the heading, there is a "Title" field with a red circle around it, containing the text "EPA Office of Water (OW): Fish Consumption Advisories and Fish Tissue Sampling St". A red arrow points from the "Title" field in the table on the left to the "Title" field in the screenshot.

- A link to the complete EPA Metadata Technical Specification can be found in the top right corner of the Editing pane.

## EME 5.0 Help:

- The  icon next to a field name links directly to that field's detailed guidance in the [EPA Geospatial Metadata Style Guide using EME 5.0](#).



**Tags** [special instructions MUST be followed]

Tags (1) X Delete

NHD, reach, rivers, streams, surface water, FISH, Fish Consumption Advisories, Fish Tissue, NLFWA, WATERS, RAD, environment, health, inlandWaters, oceans, Biology, Conservation, Contaminant, Environment, Health, Human, Marine, Recreation, Water

**Special instructions:** Tags are required in EPA metadata. However, EME has disabled editing on this field as tags should NOT be added here. Instead, tags should be added in the "Topics and Keywords" page. See instructions for each of the individual topic/keyword sections in this Style Guide to add tags by type:

- [ISO 19115 Topic Categories](#)
- [Place Keywords](#)
- [EPA Keywords](#)
- [Program Code Keywords](#)
- [EPA Organization](#) (pending addition in future EME release)

If any tags exist in this field (i.e. from a previous version of the metadata) follow this process:

1. Determine if you want to keep any of the existing tags.
2. To keep tags, they must be added to your local EME database in User Keywords.
3. Once you have duplicated the desired tags from the Tags field to your User Keywords section, or if you determine that you do not want any existing tags, the tags must be removed from the Tags field by clicking "Delete."

**NOTE:** leaving any text in the Tags field renders the metadata invalid.

**Guidance:** Follow the special instructions above. If tags exist in this field they must be deleted or the metadata will be invalid.

[Metadata Technical Specification: Tags \(General\)](#)

[↑ Top of Page](#)



# EME v5.0: Validation Tips

## Validation Tips:

- When edits are made EME 5.0 automatically updates the “Date Stamp” field.
- Do not use the “*Validation*” button when validating metadata (it happens in real time)
- Do not include “Tags” in the Item Description page. Include them in the Topics and Keywords page
- Make appropriate Program Code selection from the OMB list within the Topics and Keywords page.
- More Validation Tips can be found on the [EME 5.0 wiki](#)

# DEMO



# EME v5.0: *Important URLs*

Download EME 5.0 –

- <https://github.com/USEPA/EPA-Metadata-Editor-5/releases>

EME 5.0 Fact Sheet –

- [https://edg.epa.gov/data/Public/OEI/EMEv5Files/EME5\\_FactSheet\\_20170306.pdf](https://edg.epa.gov/data/Public/OEI/EMEv5Files/EME5_FactSheet_20170306.pdf)

EME 5.0 Installation Guide –

- <https://github.com/USEPA/EPA-Metadata-Editor-5/wiki>

EME 5.0 Metadata Style Guide -

- <https://www.epa.gov/geospatial/epa-geospatial-metadata-style-guide-using-eme-5>

Questions/Help, email: [edg@epa.gov](mailto:edg@epa.gov)



# Questions?

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