29 March 2019

English

United Nations Group of Experts On Geographical Names 2019 session New York, 29 April—3 May 2019 Item 15 of the provisional agenda* Toponymic data files and gazetteers (data processing and tools, database management, data dissemination: products and services) (Working Group on Toponymic Data Files and Gazetteers)

 $\label{lem:vicnames} \textbf{VICNAMES} - \textbf{Register of Geographic Names - Our Victorian repository of place names, and cultural place name history}$

Submitted by Australia**

United Nations Group of Experts on Geographic Names - VICNAMES – Register of Geographic Names - Our Victorian repository of place names, and cultural place name history.

Victoria is an Australian State and has the responsibility for maintaining place names. State and Territories have legislation which enables them to do this, for Victoria this is known as the *Geographic Place Names Act* 1998 (the Act). The Act allows for the appointment of a Registrar of Geographic Names who maintains a set of Guidelines, a Register of Geographic Names, known as VICNAMES and a Geographic Place Names Advisory Panel. Compliance and administration is managed by a small team called Geographic Names Victoria (GNV). GNV is part of the Department of Environment, Land, Water and Planning within the Victorian Government.

The Register of Geographic Names – VICNAMES allows users to search all registered and recorded place names in Victoria and holds more than 200,000 road and place names. It includes geographic features such as mountains and rivers; bounded localities such as suburbs, towns, cities; and regions and physical infrastructure such as roads, reserves and schools. This paper will focus on the place name aspects of VICNAMES.

GEGN.2/2019/CRP.125

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1. Introduction

Section 9 of the Geographic Place Names Act 1998 provides for a Register of Geographic Names, which includes place names and the names of streets and roads. The Register of Geographic Names – VICNAMES allows users to search all registered and recorded place names in Victoria and holds more than 200,000 road and place names. It includes geographic features such as mountains and rivers; bounded localities such as suburbs, towns, cities; and regions and physical infrastructure such as roads, reserves and schools.

VICNAMES also allows historical (cultural) information to held against every entry, this includes roads and places. The application also allows naming authorities¹ to undertake duplication searches which assist in determining if a place or road name is duplicated within a pre-determined radius. This functionality assists naming authorities in ensuring compliance to the Naming rules for places in Victoria – 2016 (Naming rules). Principle D Duplication is a requirement that naming authorities must comply with. The Naming rules are available online. (https://www.propertyandlandtitles.vic.gov.au/naming-places-features-and-roads/naming-rules-for-places-in-victoria).

2. VICNAMES – the Register of Geographic Names

The VICNAMES electronic application is available online (https://maps.land.vic.gov.au/lassi/VicnamesUI.jsp. / https://www.propertyandlandtitles.vic.gov.au/naming-places-features-and-roads/vicnames) and accessible to the public and place name specialists. VICNAMES holds more than 200,000 road and place names and allows users to search all officially gazetted, registered and recorded road, feature and locality names in Victoria. The user can use the application to:

- assist naming authorities ensure a proposed name will not be a duplicate
- ascertain details on the location and extent of geographic features, localities and roads
- submit or find historical information on place names.





Figure 1: Front page of VICNAMES.

Figure 2: front page of VICNAMES with pop closed.

Changes to place names are managed by system administrators within Geographic Names Victoria (GNV), this includes changing place name status', creating and amending records. Changes are typically made at the direction of the Registrar of Geographic Names and when a name has been gazetted in the Victoria Government Gazette. Names that have been gazetted comply with the Naming rules for places in Victoria – 2016 and have been received as part of a naming proposal from a naming authority.

The community is involved in place naming decisions through consultation by a naming authority. The Naming rules provide a step by step processes for engaging with the community and only those names that meet the Naming rules principles, statutory requirements and processes will be gazetted and registered in VICNAMES.

¹ Councils, government departments or authorities and private organisations are considered to be naming authorities when they are responsible for a particular feature or road within their jurisdiction. This may apply even when they may not be the owners and/or responsible for the maintenance of the feature or road e.g. Crown Land Committees of Management or leased/licensed facilities with maintenance obligations.

Available data

There are some differences in the data stored for place and road records in VICNAMES, this is due to data being held in the VICNAMES application versus other spatial databases. For example, place name related data is created and maintained in VICNAMES, whereas the road data is held in the Vicmap² Road Transport layer with VICNAMES taking a snapshot of this information to display. The following information is typically available:

Information	Available / Displayed
Name	Road and place
Status of name (refer below for more information)	Place
Registration date	Place
Historical name (if available)	Place
Gazette notice date and reference	Place
Feature descriptor	Place
Vicmap ID – persistent feature identifier (PFI)	Road and place
Location description	Place
Coordinates (centroid)	Place
Council – local government area where the feature is located	Place
Naming authority	Place
Permalink – a persistent permanent link to the record	Place
History of the name (if available)	Road and place
Supporting historical documents (if available)	Road and place
Map source information.	Place

VICNAMES is linked to Vicmap, the Victorian government spatial data set. Linking VICNAMES to Vicmap ensures that the information in VICNAMES is aligned to the spatial representation of roads, features and localities, and that Vicmap references all officially registered or recorded names for roads, features and localities. Vicmap includes data that may not be officially registered under the Act.

² Vicmap data is the authoritative spatial data for the State of Victoria. It is the foundation of Victoria's primary mapping and geographic information systems.

Status

Within VICNAMES there are seven status which may be applied to place names. The table below details the place name status with a description and example.

The table below refers to sections and principles from the Naming rules for places in Victoria – 2016 (Naming rules). The Naming rules are available online. (https://www.propertyandlandtitles.vic.gov.au/naming-places-features-and-roads/naming-rules-for-places-in-victoria).

Place name status	Description
Registered	This type is legally recognised for the purposes of the Act as an official name for a road, feature or locality administered or coordinated by a government authority. For example Watson Creek or Lorne.
Dual	This type consists of one name comprised of one non-Aboriginal and one Aboriginal name, which must be used together as the registered legally recognised name for the feature (refer to Principle (L)). For example, Point Ritchie/Moyjil. For further information refer to Principle (G) Dual names.
Historical	This is a name no longer in official use but recorded for information purposes. For example <u>Alexanders Head</u> is now known as Brock Monument and <u>Jeremal Creek</u> is now known as Corryong Creek.
Base	This is a lifetime name for a feature, if the recorded name is subject to limited-term private contracts (refer to Section 4.2.4). For example Docklands Stadium is the base name and the current Registered name alters depending on the current site sponsor. For example, Marvel Stadium.
Recorded	This is the name of a feature if a private entity has naming rights or the source of the name has yet to be confirmed with the naming authority (refer to Section 3.8). They are included in VICNAMES in the interests of public safety and information. For example <u>Ault Beeac Falls</u> or Amaroo Neighbourhood Centre.
Traditional	This is an Aboriginal name that is not in official use or used as a dual name for a feature (refer to Section 3.5). For example <u>Wallermeryong Creek</u> is the Aboriginal name for Main Creek.
Archived	Names no longer associated with the Register. For example, Ascot Telephone Exchange.

Composite gazetteer of Australia

The place name data within VICNAMES is made available to the Composite Gazetteer of Australia. The Gazetteer provides information on the location and spelling of more than 370,000 geographical names across Australia and its external Territories. The Permanent Committee on Place Names (PCPN³) which represents Australian States and Territories over the past three years been working on a nationally consistent feature catalogue to aid in the update of data to the Gazetteer.

³ The Committee for Geographical Names in Australasia (CGNA) was formed in 1984 to provide a coordinating role in Australian place naming activities. CGNA was established within ICSM in 1993. In October 2015 the name of the committee was updated to the Permanent Committee on Place Names (PCPN). https://www.icsm.gov.au/education/geographic-names-teaching-package/what-pcpn

3. VICNAMES – General functionality

A guide is available online which explains the functionality of the application, the information below is an updated extract of. 'The <u>Guide to VICNAMES'</u>

(https://www.propertyandlandtitles.vic.gov.au/ data/assets/word doc/0032/55976/Guide-to-VICNAMES-Feb-2016.docx) which explains how to:

- use VICNAMES
- find the name of a place or road in Victoria
- conduct a name search based on a similarly spelt and sounding name
- search for the origins of a name and submit historical information to any place or road
- check for duplicated geographic feature and road names, within a radius of 5, 15 or 30 kilometres
 (as per the requirement of Principle D of the <u>Naming rules for places in Victoria, Statutory requirements for naming roads, features and localities –2016</u> (Naming rules)

When the homepage screen has been closed, you will see the screen in Figure 2: a map of Victoria.

VICNAMES functionality can be accessed from this screen using the toggle to open the VICNAMES search pane, located at the top left of the map.





Figure 3: Toggle the VICNAMES Search Pane.

Figure 4: Elastic search enables searches of multiple datasets.

You are able to perform the following VICNAMES searches:

- a general search using the elastic search bar (refer to Figure 4)
- place search (including duplicate) (Figures 5 & 6)
- historical information search (Figure 7).



Figure 5: VICNAMES place search.



Figure 6: VICNAMES duplicate place search.



Figure 7: VICNAMES place historical information search.

These three buttons alternate between aerial imagery and the map base and are located beneath the VICNAMES search pane

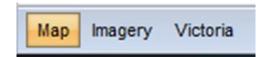


Figure 8: Allows users to switch between views.

Directly above the map pane, the VICNAMES toolbar provides additional functionality, which is briefly outlined above.

- metropolitan only view (zooms to metropolitan)
- Victoria view (zooms to Victoria)
- zoom in and out
- zoom to a designated scale or municipality
- pan around the map
- identify property (property layer must be on)
- identify feature (scale-dependent)
- identify road (scale-dependent)
- measure distance

- measure area
- mark-up tools
- clear highlighted
- print and save images
- street view (Google)
- polygon search (scale-dependent)
- view results
- download data.



Figure 9: VICNAMES toolbar.

Hovering over these icons will provide further information about their use.

4. VICNAMES - place names module

The place name module is a powerful tool to search all gazetted, registered and recorded places in Victoria. There are over 400 geographic, features which includes mountains and rivers; bounded localities such as suburbs, towns, cities; and regions and physical infrastructure such as, reserves and schools.

You can perform the following actions:

- search either normal or duplicate place names
- add a place name
- select the type of match
- select a feature type
- select a place name status,
- select a municipality
- search only the Geographic Names Register or other data containing place names, specifically Features of Interest.

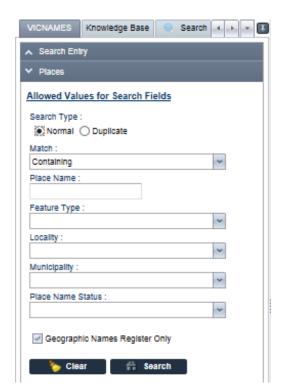


Figure 10: VICNAMES place search.

Entering text to the place name field and clicking search (enter) will return the following screen. Figure 11.



Figure 11: VICNAMES place search results.

You are then able to perform the following actions:

- select a record from the screen to find further information
- select a record and click the 'view on map' button
- download the results displayed.

Select a record and the following screen is displayed.

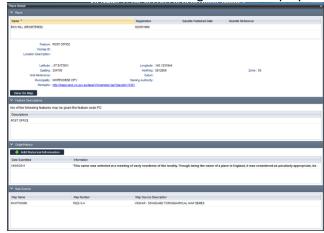


Figure 12: VICNAMES place search results - place detail..

You are now able to perform the following actions:

- peruse the information
- select the 'View on map' button
- add historical information
- Copy the Permalink.

When selecting 'View on map' the place search results screen closes and the map opens displaying the selected places as point(s) in orange.

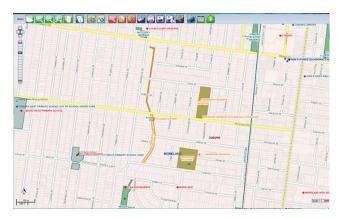


Figure 13: VICNAMES place search - View on map result.

You can select additional tools from the tool bar or you can return to the place search results screen by selecting the 'view search results' button, second from the right-hand end of the VICNAMES toolbar.



Figure 14: VICNAMES toolbar.

Features of interest search

You can search the Vicmap features of interest (Fol), which is currently displaying GEOMARK data (a Vicmap product which provides all named places across a range of Vicmap products) within VICNAMES to find a place that is not officially registered in VICNAMES. To do this within the 'VICNAMES place search', un-tick the 'Geographic Names Register Only' button. You will now be able to search using the place name and feature type fields. Once searched, the results in the source column will be split between GNR and GEOMARK. Figure 15.



Figure 15: VICNAMES place search results.

Note that only GNR records can be perused further; there is no information in VICNAMES on GEOMARK records, but you can view them on the map.

Place duplication search

To do a search for duplicate place names, select duplicate search type. Figure 16.

The duplicate place name function is used by place name specialists, typically from naming authorities to ascertain whether a proposed name is duplicated. Duplicated names present a risk to public safety or delay in the delivering of goods and services.

When completing a 'place duplication' search under VICNAMES, the system defaults to including GNR and GEOMARK data.



Figure 16: VICNAMES duplicate place search

You must enter text into the 'place name' search field and then click the 'Search on the map' button. Figure 16

Note that a cross-hair (+) will appear once the cursor has been moved over the map, after clicking 'Search on map'. Once a point is selected, a purple circle will appear on the map. The system will default the radius search to 5, 15, or 30 kilometres, based on the requirements of the Naming rules. You can change the radius manually if needed.

Typically, you can expect to receive one of two results – either 'no results to display' or results for review. Figure 17.

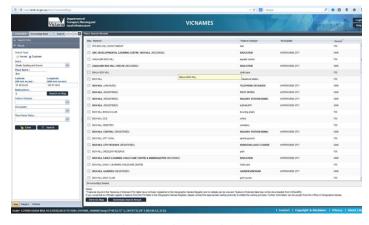


Figure 17: VICNAMES duplicate place search results.

The results need to be interpreted to check whether a legitimate duplicate has been found, in which case any proposal to use the name would be rejected by the Registrar.

Historical information search

A little over 20,000 records have historical information associated with a place name.

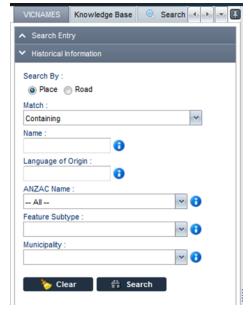


Figure 18: VICNAMES place historical information search.

You can perform the following actions:

- search by place or road
- select the type of match
- type in the name of interest
- add the language of origin (if known)
- · select whether the record is Anzac related
- select a feature sub-type (for places only, not roads)
- select a municipality.

Entering text into the 'name' field will display the following screen (assuming there is historical information in VICNAMES).

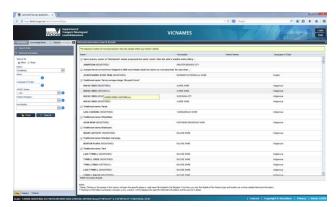


Figure 19: VICNAMES place historical information search results.

You can perform the following actions:

- complete a new historical information search
- select the historical information you want to view
- select the place or road name of interest
- return to the place or road search entry fields on the left of the screen to check if the name of interest is in VICNAMES, and then to add historical information.

Selecting the historical information record displays Figure 20.



Figure 10: VICNAMES place historical information search results – detailed.

Selecting the place record displays Figure 21.

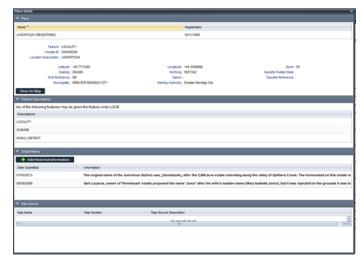


Figure 11: VICNAMES place search results - place detail.

You can then perform the following actions for a place:

peruse the information

- view the record on the map
- add historical information.

Submit historical information to VICNAMES

You can add historical information to any place or road record in VICNAMES. To add historical information, select the 'Add historical information' once you have searched and selected a record. Figure 21.

Once you selected the Add Historical Information button Figure 22 will display.



Figure 12: Submit historical information.

You can perform the following actions:

- add language of origin (if known)
- indicate if the name is an Australian Indigenous language
- indicate if the record is an Anzac related name
- indicate the date first recorded
- add the history or origin of the name
- indicate the type of source and add relevant information current approved sources include:
 - book
 - edited book section
 - journal
 - manuscript
 - oral history
 - maps
 - newspaper or magazine
 - artefact
 - website
 - council
 - OGN

- add relevant contact details of the submitter
- submit the historical entry.

All historical submissions is reviewed Geographic Names Victoria staff before approval.

You are also able to submit corroborating historical information which can be emailed once a submission is made and uploaded by administrators upon approval. Word documents, PDFs and images can all be uploaded to any given record that has attached historical information. The addition of documents allows the story behind the place name to be told, often in greater detail and with examples.

Data download

If you select the 'data download' button from the toolbar, Figure 23 will display.

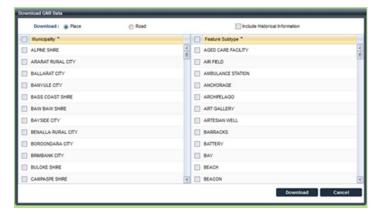


Figure 13: VICNAMES data download.

You can perform the following actions:

- download place data
- select one, municipality, several, or all (municipalities)
- select a feature type or all types
- include historical information
- download the data.

Before you can create a download, the terms and conditions must be accepted.

Additional functionality

You are able to search for VICNAMES and other relevant information from the 'knowledge base' tab adjacent to the VICNAMES search tab.

Adjacent to the 'knowledge base' tab is a 'search' tab that provides general LASSI functionality.

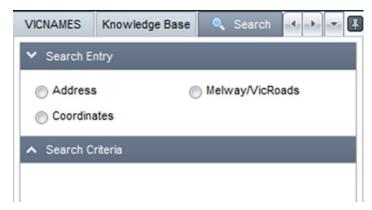


Figure 14: Alternative search functions.

Adjacent to the search tab is the 'build map' tab. From here, you can determine which information is displayed on the map screen.



Figure 15: Build layers tab.

Adjacent to build map tab is the legend tab which enables you to interpret the map.

Figure 16: Legend tab.



5. VICNAMES – administration

GNV officers as administrators have numerous functions available to them. When creating a new record the administrator can perform the following actions (Figure 27):

- Add the new name.
- · Allow a name.
- Provide a location description.
- Assign to a naming authority.
- Assign to a municipality.
- · Assign a status.
- Assign a feature type.
- Select the registration date.
- Search on the map to assign latitude, longitude and Grid Ref.
- Assign a Vicmap ID to ensure appropriate linkages.
- Select a gazette publish date.
- Assign a Gazette reference.



Figure 17: Add new VICNAMES place record.

Existing records can also be amended, administrators can perform the following actions:

- Edit any details within the functions on Figure
 27
- Add a new name and or amend any details on Figure 27.
- Delete a record from VICNAMES.



Figure 18: VICNAMES place detail - administrator edit functions.

Historical information can be approved or declined by an administrator. Figure 29.



Figure 19: VICNAMES - Approve or decline historical information.

The front-page splash screen information can be edited, to enable importance messages to be displayed to users. Figure 30.



Figure 20: VICNAMES - home page edit screen.

Administrators have the ability to amend the contents of a number of tables within VICNAMES, these include (Figure 31 and Figure 32):

- Adding or amending the list of place name statuses.
- Adding or amending the list of map sources.
- Adding or amending the list of feature types.
- Adding or amending the list of historians external users to VICNAMES.
- Adding or amending the list of place name statuses.
- Adding or amending the list importance notices.
- Adding or amending the list of naming authorities.
- Adding or amending the list of external links to important information.
- Adding or amending the list of municipalities.
- Adding or amending the radiuses applied to localities.
- Ability to bulk add new records.

• Ability to bulk update historical information.



Figure 21: VICNAMES administrator functions - maintenance.



Figure 22:VICNAMES administrator functions – manage data.

Administrators also can run an audit of all information which has been added, deleted or amended. Figure 33.



Figure 23: VICNAMES administrator function - audit.

6. VICNAMES – challenges

Duplication search

VICNAMES currently uses <u>Soundex</u>⁴ as its phonetic algorithm to search for duplicate place names. The current algorithm does not pick up all duplicate records as one would expect and returned duplicate results need to be interrogated to determine what is and is not a duplicate place.

Education of users around the deficiencies is provided at workshops and presentations, users, in particular naming authority officers are advised to use their own local knowledge in addition to VICNAMES.

It is expected that a future enhancement will address some of the deficiencies. University of Melbourne undertook research in this area and came up with an improved phonetic search, this will be investigated further as well as consideration given to Metaphone 3, which was launched in 2009.

Spatial accuracy

With improvements to the spatial accuracy of Vicmap it has become apparent that VICNAMES place name records are at times positioned incorrectly. Often original records captured in 1966 used only 4-digit coordinates, whereas today we would rely on six-digit coordinates. Theses spatial inaccuracies cause problems for emergency services when a VICNAMES record is used as the basis for dispatch. As an interim solution emergency services highlight to us place names which are positioned incorrectly, this enables GNV to correct the error. As a priority the records which are relied upon by emergency services are being reviewed and inaccuracies corrected. This work is being undertaken by a contractor and is expected to be completed in the next six months.

Victoria is currently going through a Digital Cadastre Modernisation; the project will see improvements in the accuracy of parcel boundaries. This in turn has effects on localities, municipalities and parishes, which are displayed in VICNAMES and Vicmap. The project will deliver a wealth of benefits, not least ensuring that emergency services have pin point accuracy, it has never been more important to ensure the accuracy of the data that we create in VICNAMES and Vicmap. An informative video is online. (online. (nodernisation-project).

Data sources

The majority of records in VICNAMES hold a registration date of 1966, this was thought to be the date that names were taken off paper maps and added to a gazetteer/ register It has become apparent that in some cases this date incorrect. Paper maps at times do not display the names of places held in VICNAMES which calls into question the validity of the record. This proves especially problematic when legal challenges are made on what was assumed to be fact.

⁴ Soundex: Soundex is a phonetic algorithm for indexing names by sound, as pronounced in English https://en.wikipedia.org/wiki/Soundex

Further investigation into the sources of the data that appear in VICNAMES, including interviews with previous staff and Registrar's, it is hoped, will ensure more robust defence of the information contained in VICNAMES.

7. VICNAMES – future

VICNAMES is focused on capturing naming data digitally. A process of on-going improvement to systems is occurring to reduce the data received by GNV that is of a non-digital nature. The aim is to ensure that data provided from the naming authorities is accurate and moved into the register in a timely manner. Our current system is under review for opportunities to automate steps in the process to achieve the goals of accuracy and timeliness.

Some of the initiatives under consideration include VGI (Volunteered Geographic Information) and how we manage this, if at all. With the rise of Google Maps and Open Street maps there are clear benefits with having the public being able to update and amend data, though there are pitfalls with this, for example the adoption of place names which are unofficial. Renaming of neighbourhoods of the United States of America and the renaming of a tennis court are two such examples.

GNV will monitor closely the work around VGI and how this may impact our official register of place names. With the right status and confidence level being applied it is expected that VGI data could be incorporated into official registers. Further direction on VGI will be taken from the Department of Environment, Land, Water and Planning's Core Spatial Data Services Strategy 2018 – 2023.

More immediate changes will see the following improvements in 2019:

- Conversion of place names being held in CAPITALS to Sentence Case, a requirement of Permanent Committee on Place Names.
- Adoption of an Aboriginal flag for records within VICNAMES to enable easy identification and reporting of indigenous names. An important enhancement for understanding the impact that our program to support the UN International year of Indigenous Language is having on the names added to the register.
- Improvements in the algorithm used for duplication searches, taking in to account up to date population data.
- Improved automation and connections with Vicmap data to ensure place names are linked to spatial extents.

8. Conclusion

The VICNAMES application supports all users; administrators, naming authorities, place name specialists and the public in complying with the *Geographic Place Names Act 1998*, and the Naming rules.

The application is designed to assist users in the naming process and has the benefit of increasing the safety of the community.

The VICNAMES application provides the ability to assist in the preserving history of geographic place names. A part of this is enabling multiple stories and names to be assigned to one place, preserving the history of the multiple cultures within the Australian community and their link to places.

GNV are focused on continuing to improve the application to ensure that Victoria's history and the links to place are maintained to provide benefits for all users and the community.

⁵ As Google Maps Renames Neighborhoods, Residents Fume.

https://www.nytimes.com/2018/08/02/technology/google-maps-neighborhood-names.html

⁶ Margaret Court Arena prematurely renamed to Evonne Goolagong Arena in Google Maps https://www.abc.net.au/news/2017-06-08/google-prematurely-renames-margaret-court-arena/8600168

9. Questions

In writing this paper I would like to pose the following questions:

- 1. Are respective gazetteers/registers open to the public and in what ways can the public interact / effect change of a place name?
- 2. How if at all is Volunteered Geographic Information being managed?
- 3. Are gazetteers/registers used to ensure there are no duplicate names, if so, then what conditions are placed on duplicate names, i.e. within certain distances and what algorithm is used to filter out duplicate name, i.e. direct duplicate and phonetically similar names?
- 4. Are gazetteers/registers used to preserve cultural history behind a places name? Do you allow multiple and possible conflicting stories, how is this managed?
- 5. How do you manage linking to alternative sites, such as Wikipedia, indigenous place name sites?
- 6. What links, if any are made to respective spatial frameworks to ensure accuracy, reduction in duplicated sources of place names and connection to an authoritative list of place names?