

# ENS ONLINE

## Digital Explanatory Notes in GeoVIEW.WA

Digital maps are standard products of most geological survey organizations.

GSWA now links its **digital geology** with complementary **digital explanatory notes**.

The new Explanatory Notes System (ENS) is available online through GeoVIEW.WA. It offers:

- information on lithostratigraphic units, tectonic units, and events
- rapid updates as knowledge and interpretations change
- easy-to-navigate spatial and textual query interfaces
- reports that incorporate stratigraphic relationships and geological sorting, published to GSWA standards
- customized queries for users, by selecting any unit or area of interest, or a number of different parameters (e.g. age, rank, tectonic setting)

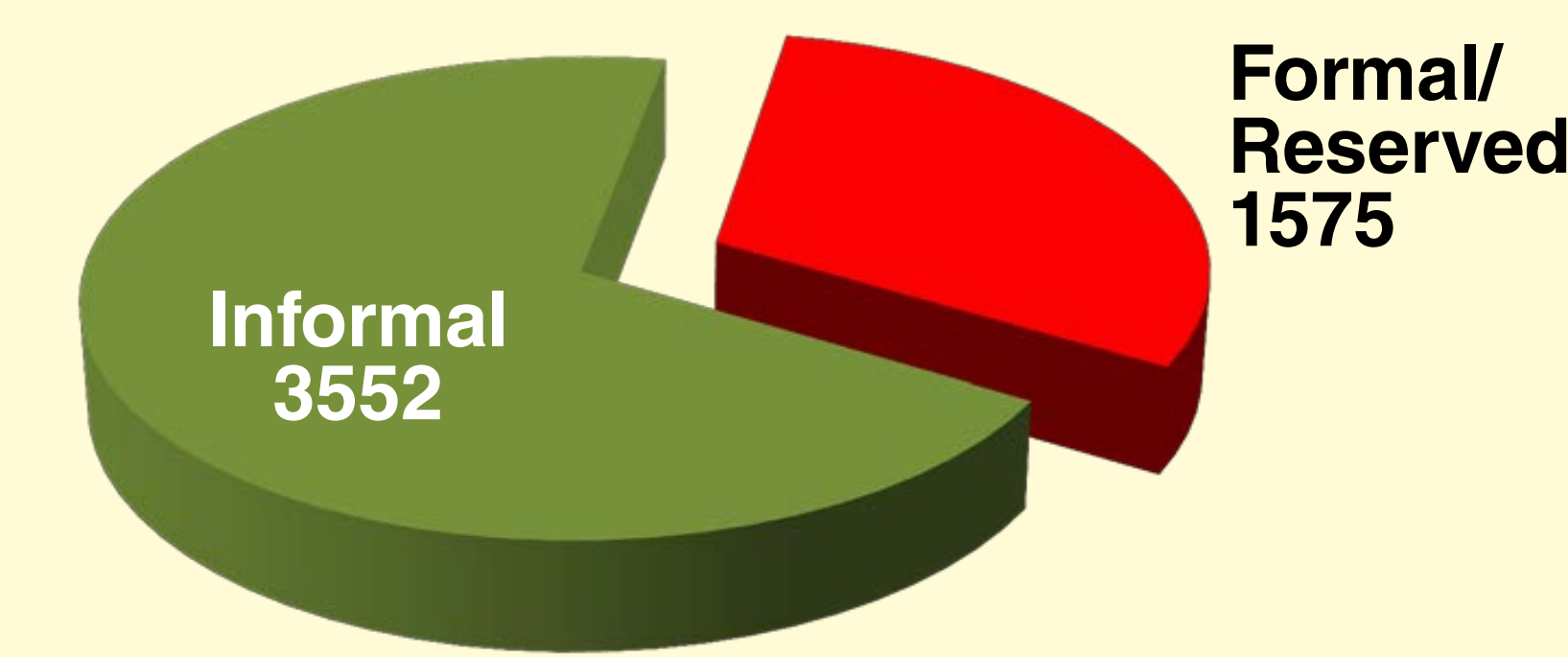


## LITHOSTRATIGRAPHIC UNITS

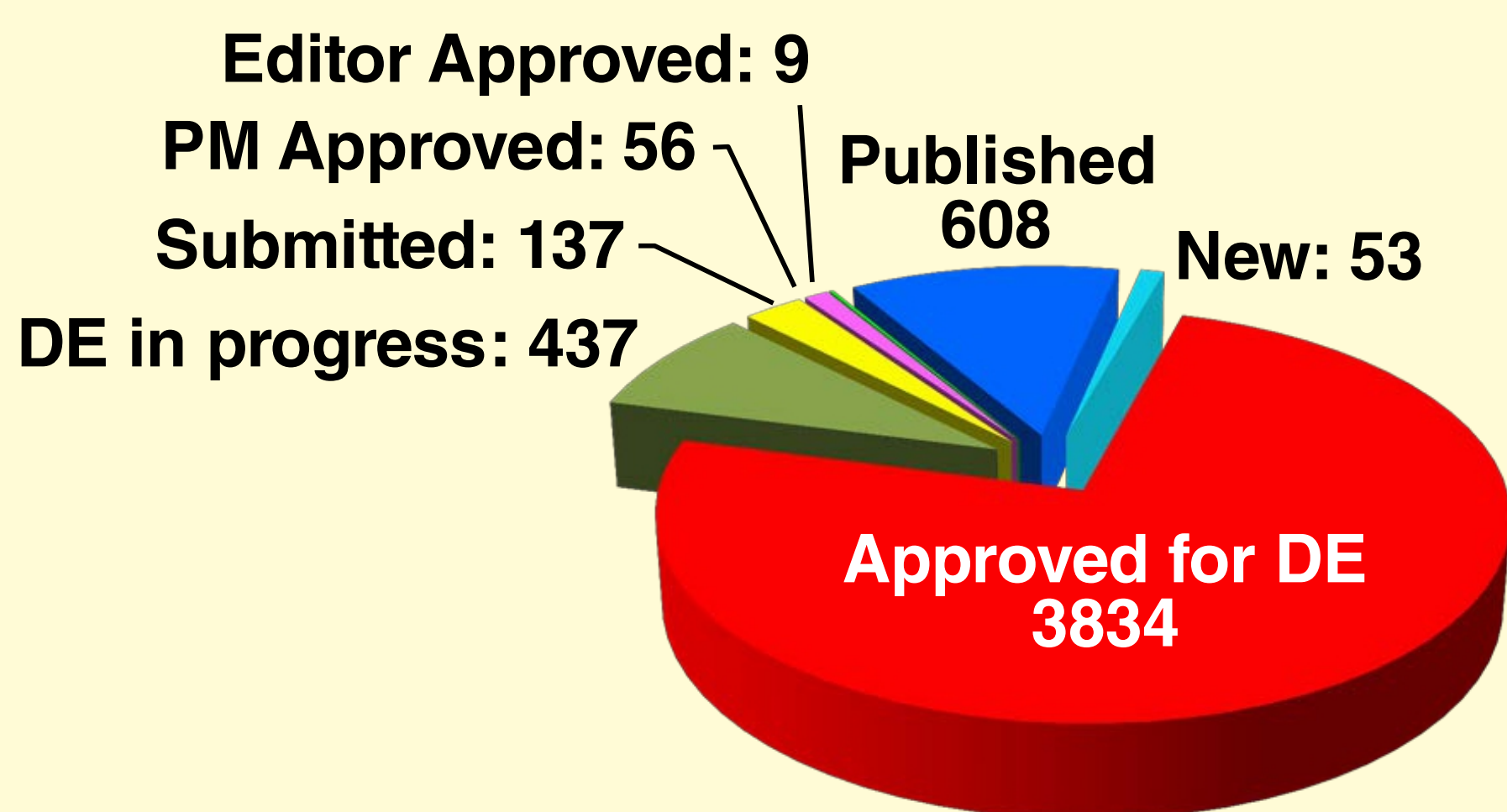
More than 5000 lithostratigraphic units have been entered for the State. Of these, about one third have a Formal/Reserved rank (see chart below).

Only about 1000 units in ENS are given lithotectonic codes, i.e. they cannot be confidently assigned to a formal stratigraphic framework yet.

### LITHOSTRATIGRAPHIC UNITS RANK



### WORKFLOW STATUS

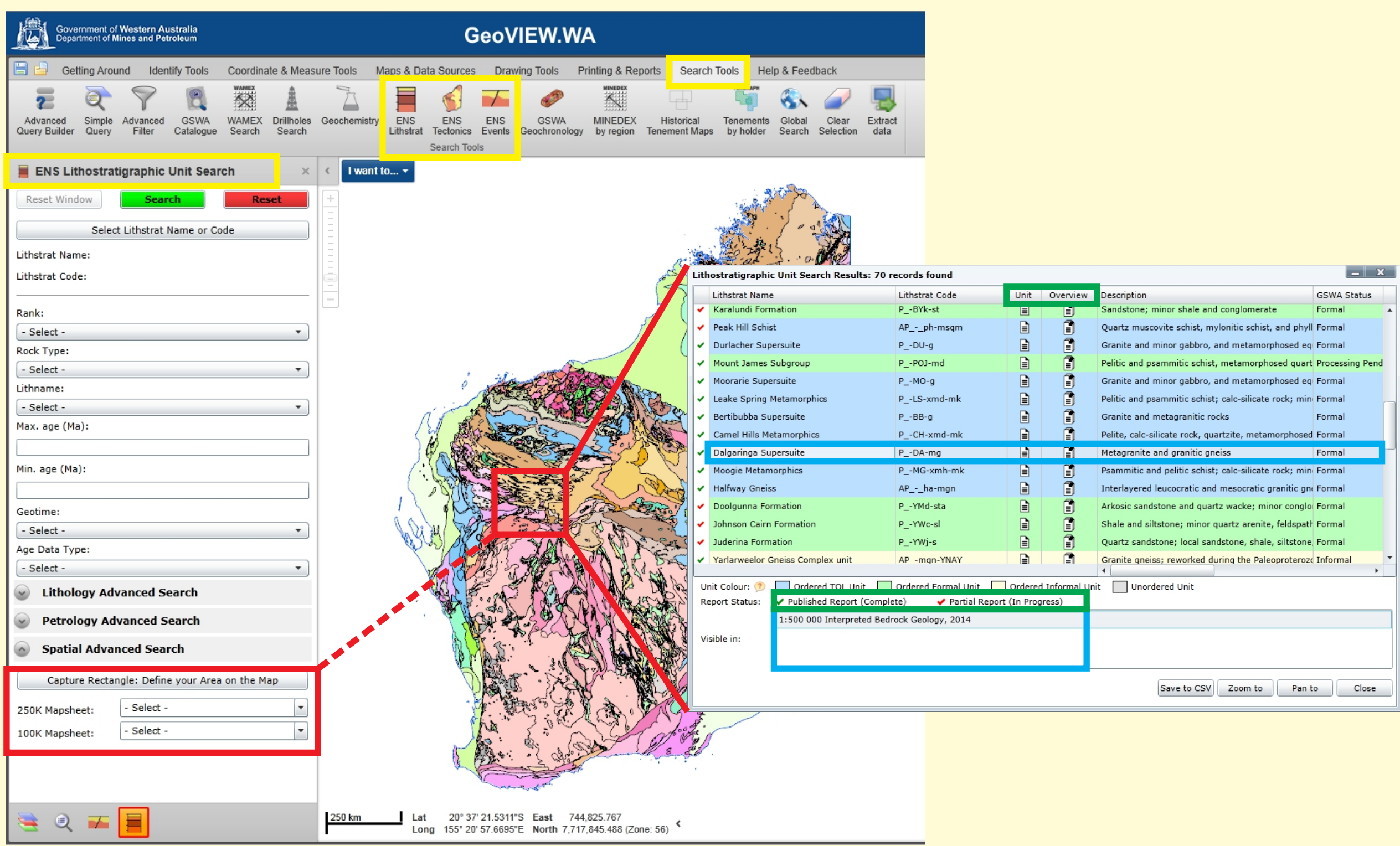


Lithostratigraphic units are written and published following the standard process of other GSWA products.

After author compilation and Project Manager approval, the unit is edited and then signed off by the Chief Geoscientist.

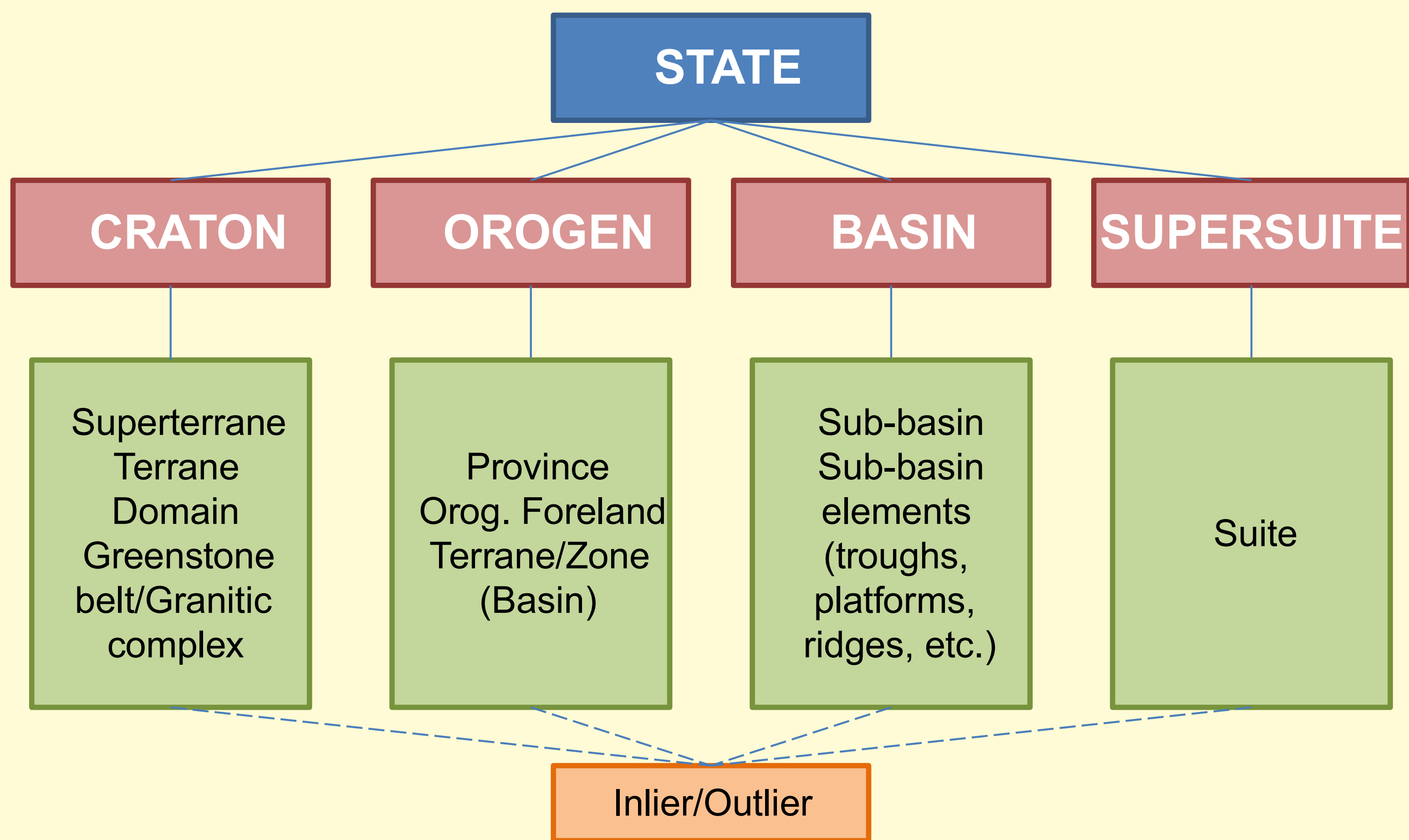
The chart above shows the current workflow status of ENS lithostratigraphic units.

Spatial and textual query interfaces in GeoVIEW.WA's *Search Tools* (yellow boxes in figure below) allow customers to produce geoscience reports (green boxes) by selecting a unit, a generalized parameter, or an area of interest (red boxes). If a selected unit is represented in GeoVIEW.WA, the layers in which it is visible are highlighted in a dedicated window (blue boxes).



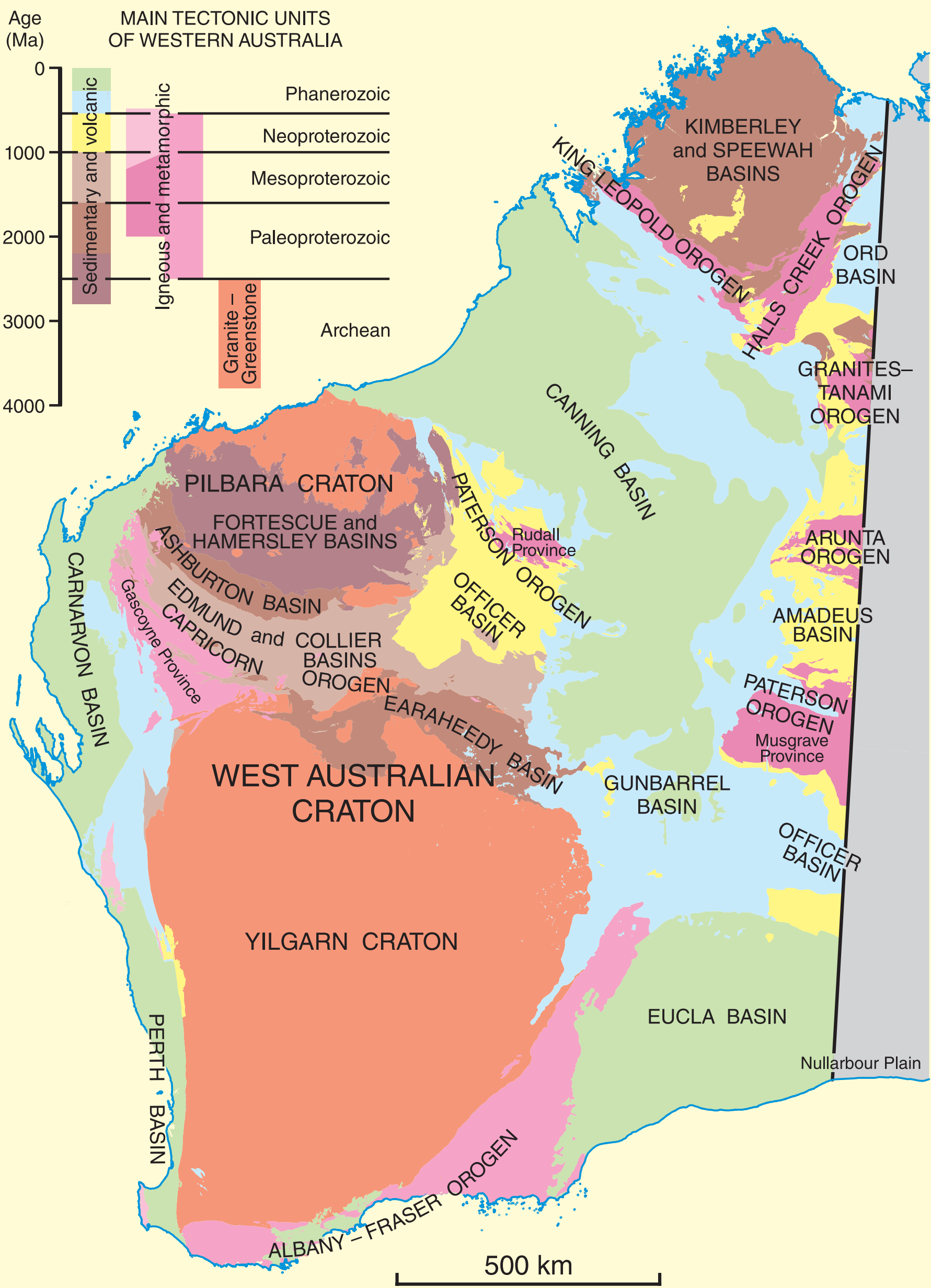
## TECTONIC UNITS

A hierarchical structure of nearly 400 units defines the tectonic framework of Western Australia, with the STATE at the highest level.



The State is subdivided at the next level into Archean and Paleoproterozoic cratons; Proterozoic orogens; Archean, Proterozoic and Phanerozoic basins (or superbasins); and igneous supersuites (e.g. large Igneous provinces) — see tectonic units map on the right.

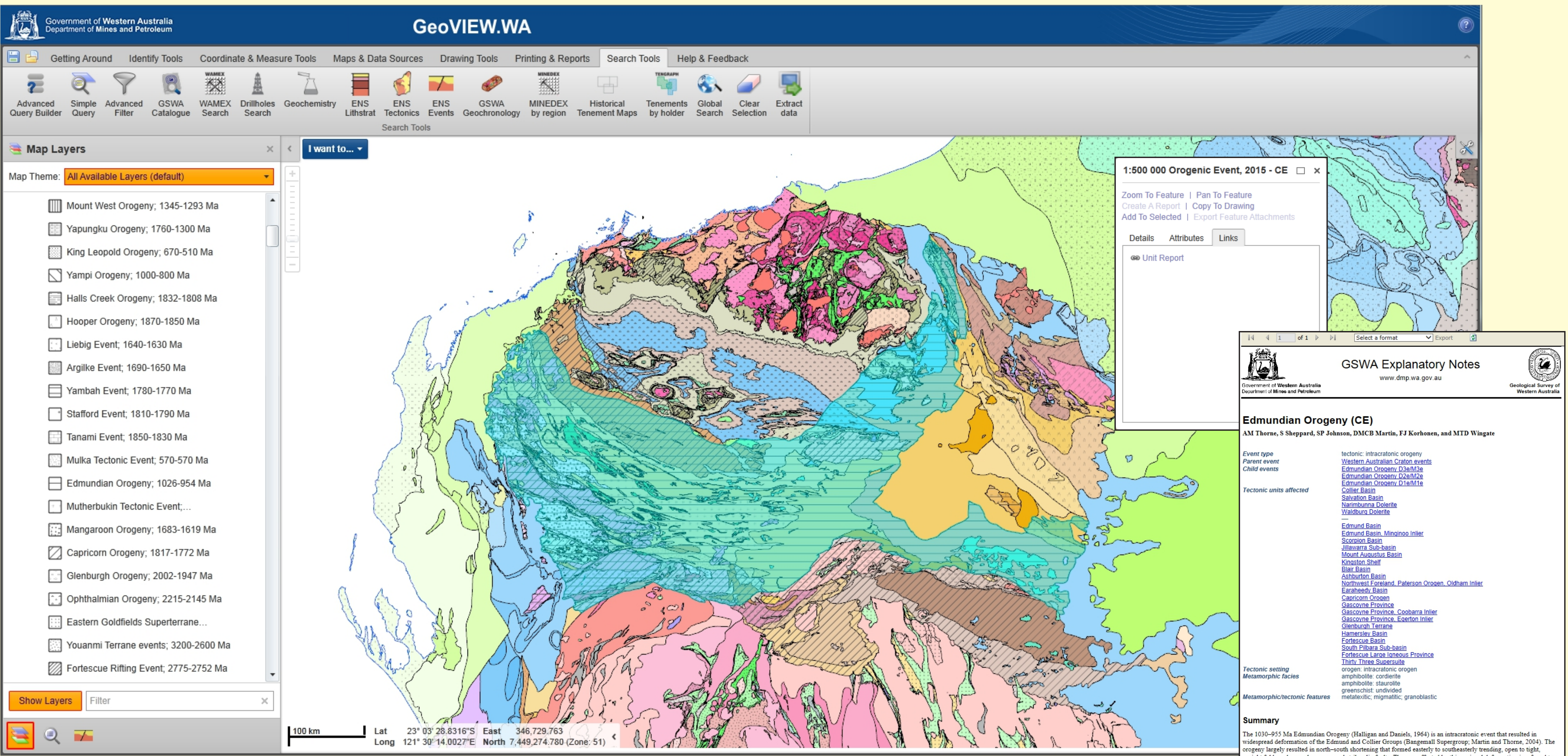
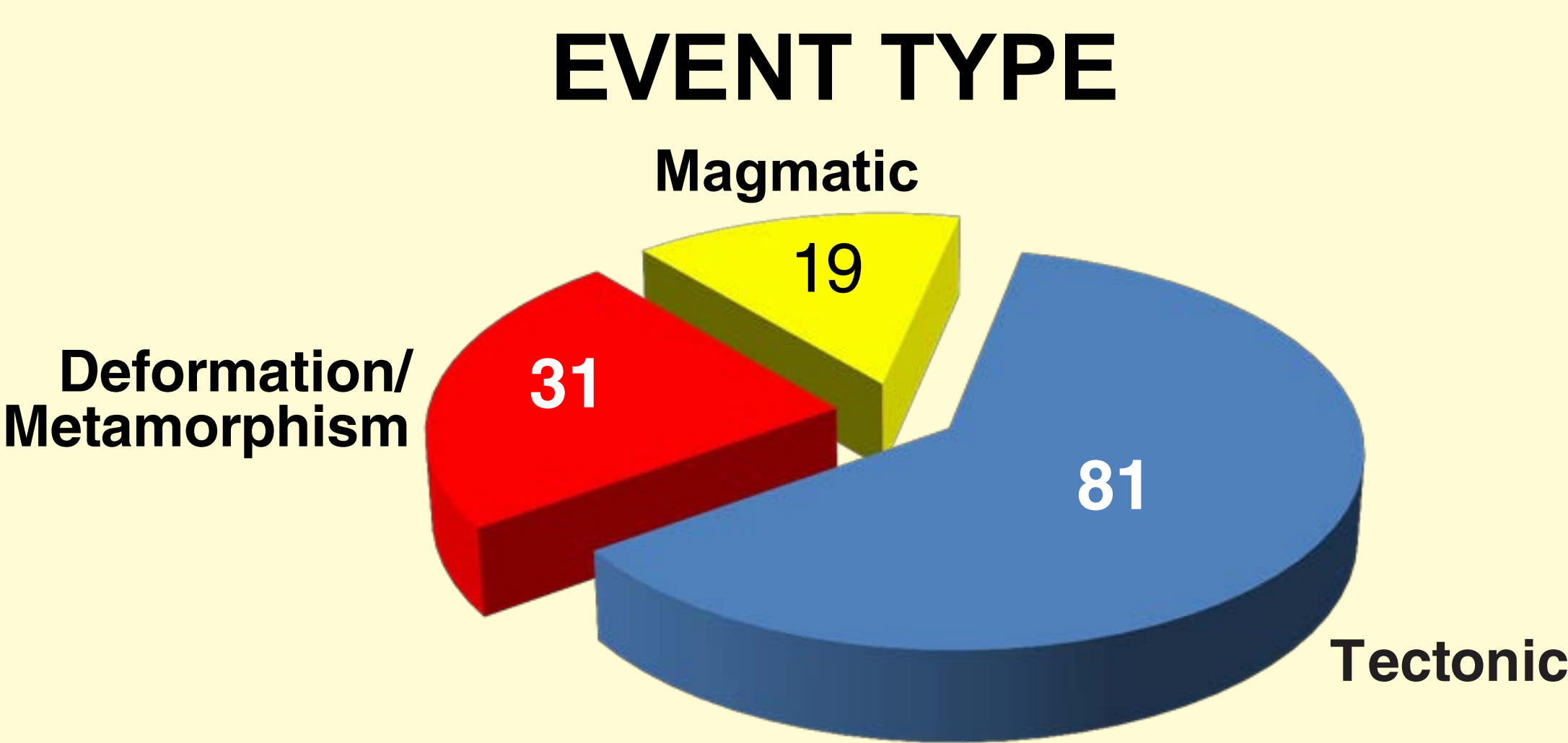
ENS informs the construction of tectonic maps such as the 1:500 000 Tectonic units of Western Australia map, and the newly released 1:10 000 000 digital tectonic layers.



## EVENTS

Approximately 130 events have been recognized in Western Australia.

The majority of events are described as tectonic (e.g. orogeny, rifting), deformation and metamorphism (e.g. compressional or transpressional orogenic stages), or magmatic. The system allows for the definition of metallogenic and impact events.



GeoVIEW.WA screenshot of orogenic events overprinting the newly released 1:2 500 000-scale geology. Part of the ENS report for the highlighted Edmundian Orogeny is shown on the right.

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