

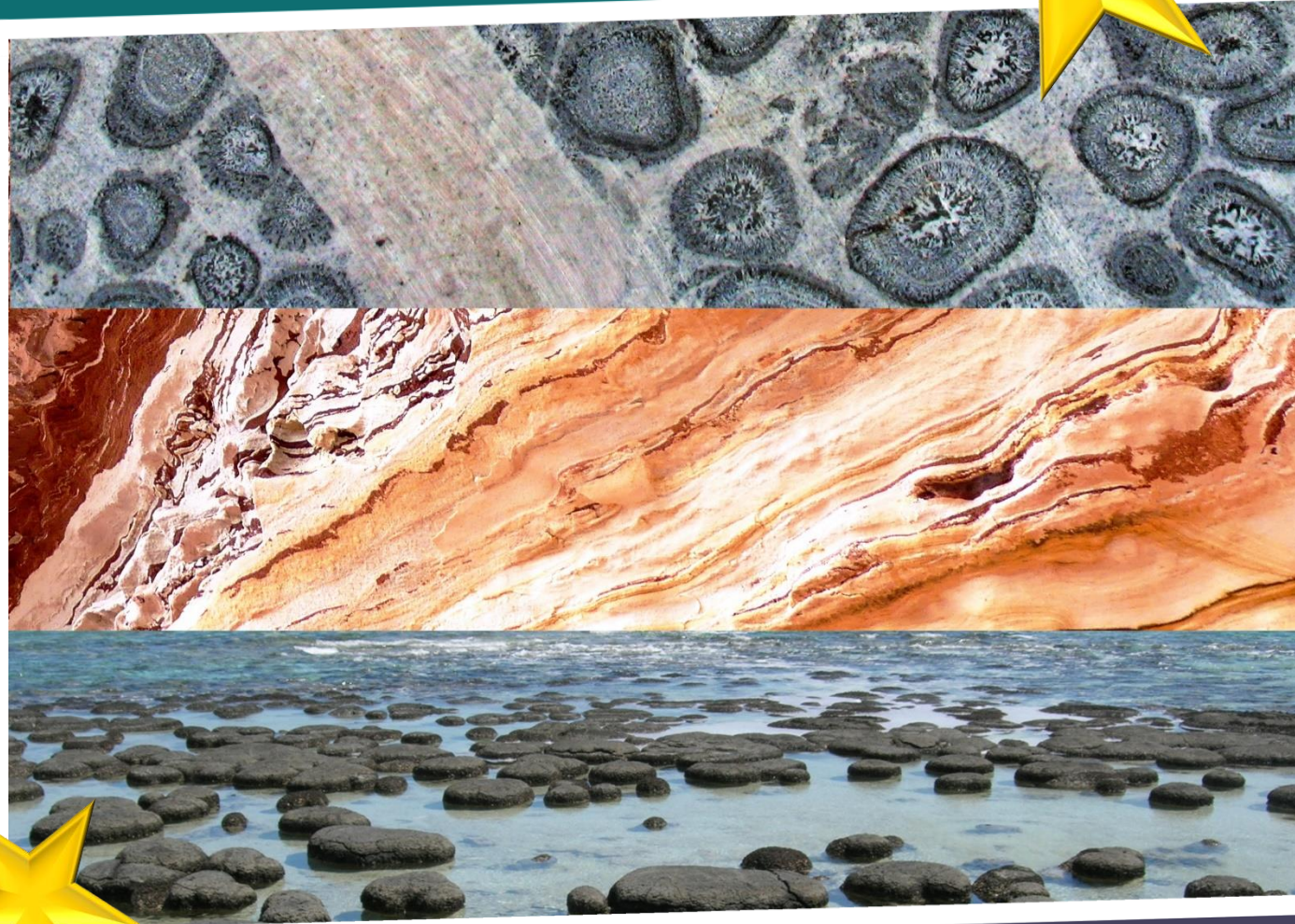


Government of Western Australia  
Department of Mines, Industry Regulation and Safety

# What's Geoheritage got to do with it?

## How to protect Western Australia's rock stars

**Dr Sarah Martin,  
Palaeontologist,  
Geological Survey of Western Australia**





# Great rocks make great tourist spots!

WA already has many geological sites beloved by visitors:

Murchison Gorge



Wolfe Creek Crater





*But many more places out there have great stories and could become valuable tourist spots!*

**Black Point:**

A favourite four wheeled drive spot, which has some of the best examples of columnar basalt in the State. The Bunbury Basalt is evidence for the separation of India and Australia, and the development of the Western Australian coastline.

Some years ago an attempt was made to turn one of these spots into a tourist site, but the project never came to fruition.





# With great value comes great responsibility...

*Care needs to be taken that sites are appropriate for tourism...*

Visitor management is key!

- Visitor safety and wayfaring
- Cultural sensitivities and access issues
- Damage from foot traffic
- Rubbish and physical damage
- Collection of rocks, fossils etc.

Jack Hills



# So... what is geoheritage?

Geoheritage is about **identifying, managing, and preserving exceptional geological features.**

There is extensive recognition of **cultural heritage** and **biological heritage**, but little understanding of **geoheritage and geodiversity.**

In many cases, **geology and landscape underpins** both biodiversity and culture, and should receive **equal recognition...**



# Geoheritage and mining

- Not necessarily incompatible!
- A number of sites on the Geoheritage Site Register were created by mining or enhanced by it
- But management needs to be carefully managed and balanced



Armadale  
Shale Quarry

# History of WA Geoheritage

## Geological Society of Australia reports

- 1) Perth and Southwestern Area, by T.C. Lemmon, 1979
- 2) Localities Beyond the Perth Region, by J.D. Carter, 1984

## Federal Heritage lists

Register of the National Estate became defunct in 2003

Australian National Heritage List established 2003 (5/17 WA sites)

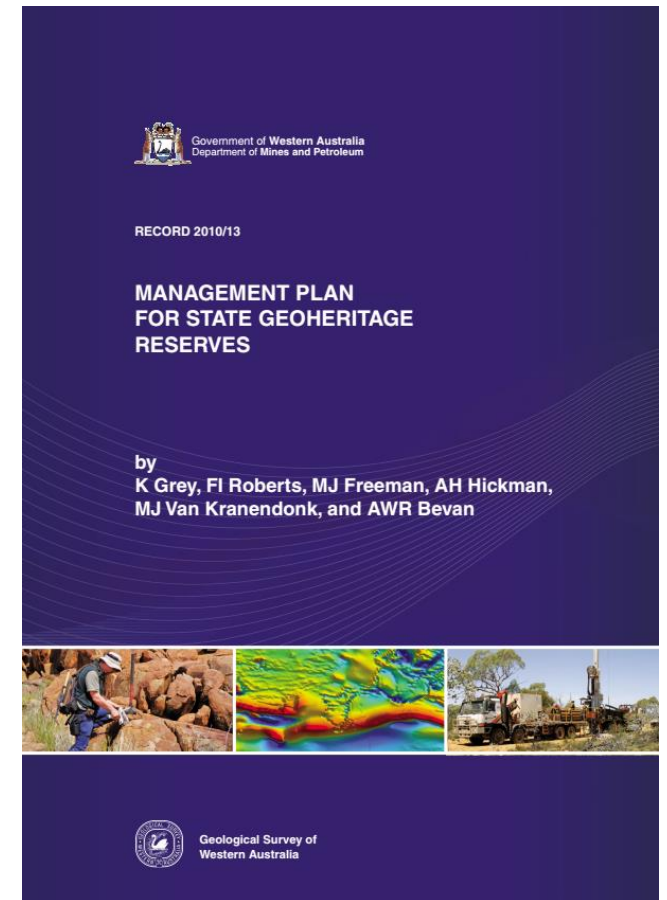
World Heritage List (3/ 4 WA / 20 Aus sites)

## State Geoheritage Register, GSWA

Initiated c.1989, formalised c.2003

2009: Geoheritage Reserves established

2010: Geoheritage Reserves management plan published



# Why does GSWA deal with geoheritage?

GSWA is the lead agency for State geoscience data

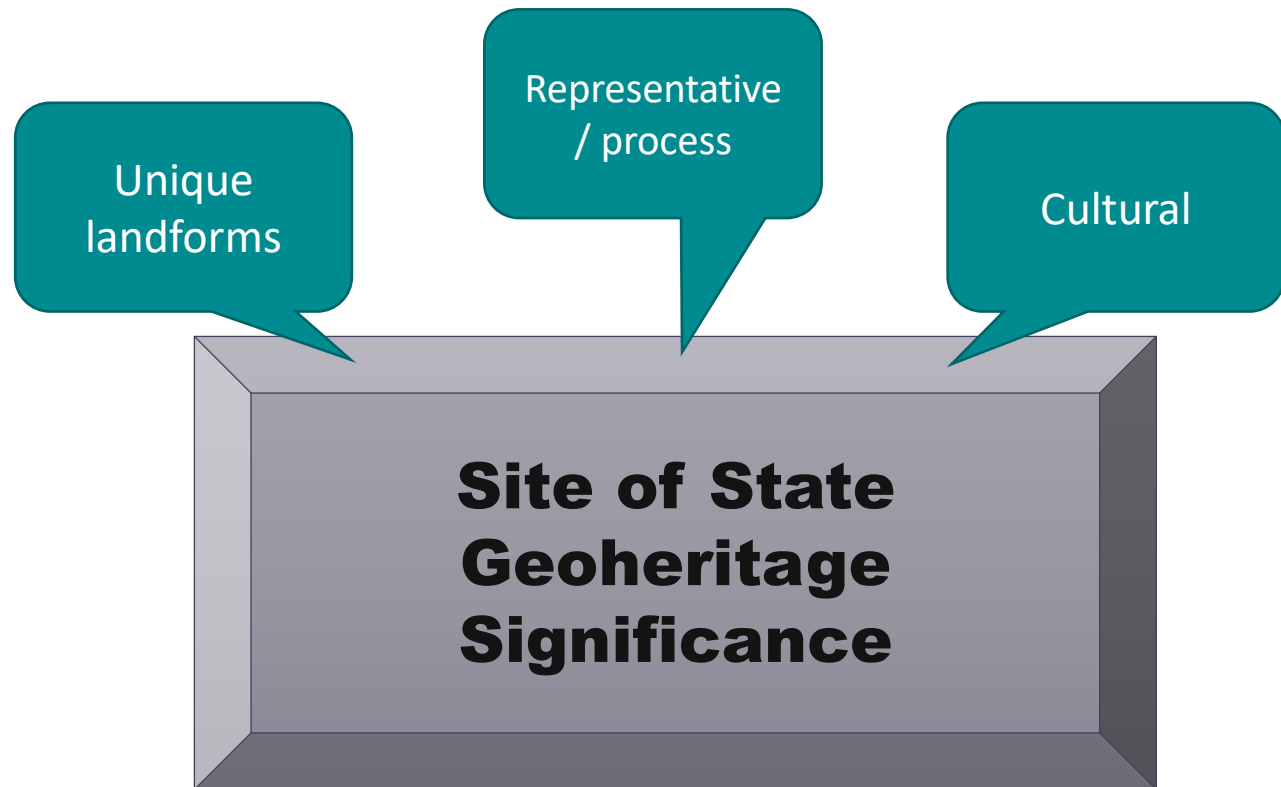
- Over 130 years of data and research
- Large professional group, varied expertise across the State
- Strong research connections across Australia and worldwide
- Produce an array of publications and datasets for a variety of audiences
- Research focus, not regulatory
- BUT... as part of DMIRS, we have the ability to influence or halt potentially destructive activities



# Identifying significant geology

GSWA's working definition:

***“Geological features considered to be unique and of outstanding value within Western Australia and to have significant scientific and educational values for the good of the community”***



# State Geoheritage Register

```
graph TD; A[State Geoheritage Register] --> B[Reserves]; A --> C[Sites];
```

## Reserves

- Crown C class Reserves
- Have a management plan
- Most require permission to access (from GSWA)
- No fossicking or exploration
- All require permission to sample (scientific)
- Not suitable for tourism (mostly)

## Sites

- No specific tenure
- Have no management plan
- Access depends on underlying tenure:
  - Some fall within National Parks, other Crown Reserves
  - Some on private property
  - Some on Crown land or pastoral leases



- Currently:

- 8 **Reserves**

- Trendall
    - Buick
    - Hickman
    - Lowe
    - Schopf
    - Awramik
    - Dalgarranga
    - Veevers

Paleoarchean  
stromatolites

Paleoarchean  
microfossils

Proven  
impact craters

- 136 **Sites**

- Fossil localities
    - Outcrops / landscapes
    - Iconic Minerals / rock types
    - Impact craters



# GSWA's role in geoheritage

- Accept/assess nominations for new sites
  - Any member of the public can nominate new sites
  - Decisions made independently using current scientific knowledge
- Provide data and educational materials on each locality
  - Current program of viewing and imaging all sites within the State

Windjana Gorge





# GSWA's role in geoheritage

- Access and sampling issues and requests; *Mining Act, 1978*
  - Section 16(3) referrals – changes in land use affecting Crown land
  - Input into conditions on mining tenements
  - Input into mining proposals
  - Input into Proposal of Works
  - Process scientific research applications
- Create new Geoheritage Reserves if/as needed; *Land Administration Act, 1997*

Trendall Reserve





# How GSWA can help you...

We can:

- Advise on site access
- Advise site stability and suitability
- Suggest alternative sites
- Suggest areas/themes to highlight
- Provide up to date and accurate geological information in any format

**PLEASE... TALK TO US EARLY IN THE PLANNING PROCESS!**

Marble Bar





# How GSWA can help you...

In the past we have produced:

- books
- pamphlets
- maps
- apps
- virtual tours (Google Earth)
- signage






# More information


## Geoheritage:

**geoheritage@dmirs.wa.gov.au**

**www.dmirs.wa.gov.au/geoheritage**

[Skip to Main Content](#) | [Sitemap](#) | [Accessibility](#) | [Contact Us](#) | +61 8 9222 3333 | [My Account](#)

 Government of **Western Australia**  
Department of **Mines, Industry Regulation and Safety**



Type your search 

[Go to whole of WA Government search](#)

[Home](#) | [Minerals & Mining](#) | [Petroleum](#) | [Dangerous Goods](#) | **[Geological Survey](#)** | [Environment](#) | [Safety](#) | [Investor Information](#) | [Community & Education](#) | [About Us & Careers](#)

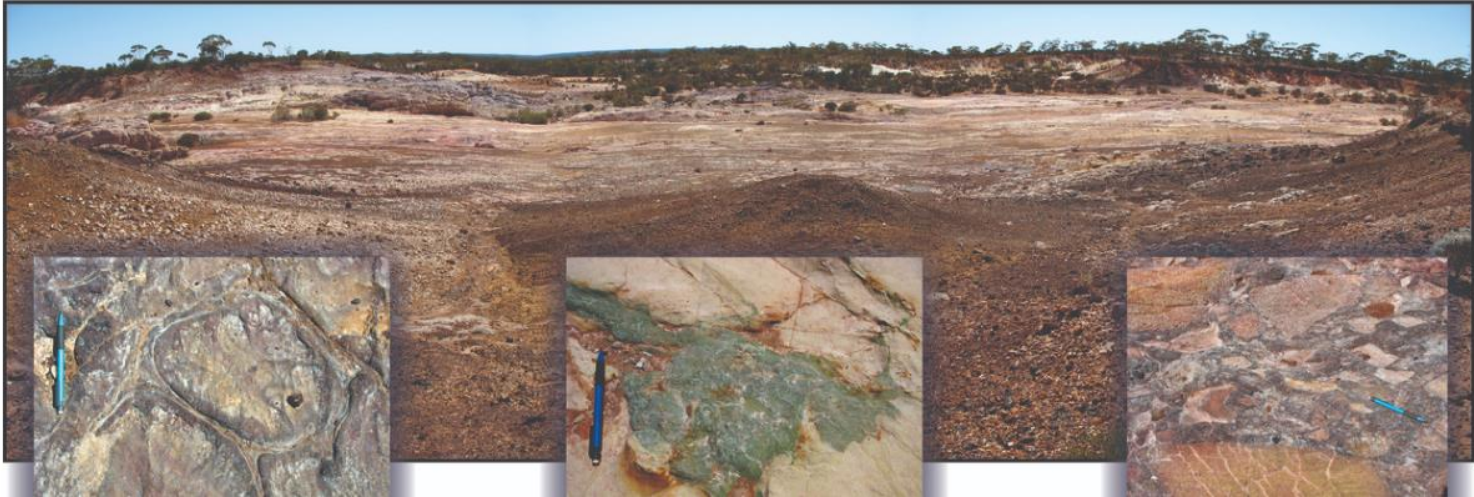
## Geoheritage

[Home](#) | [Geological Survey of Western Australia \(GSWA\)](#) | [Mineral exploration](#) | [Land use planning](#) | [Geoheritage](#)

 [Online Systems](#) 

Geoheritage is about managing, preserving and protecting exceptional geological features. A geoheritage site has geological features considered to be unique and of outstanding scientific and educational value within Western Australia.

A State register of all geoheritage sites (currently 150 sites) is managed by the Executive Director of the Geological Survey of Western Australia (GSWA). Western Australia's extensive and exceptional rock record makes it a popular destination for geotourism and geoscience research. This research includes exploring for evidence of early life on Earth, unusual fossils, and unique and distinctive mineral and rock types. Below, find information on the location of geoheritage sites, related publications, and about State and Federal legislation that governs issues such as land access, and the collection and exportation of materials. Failure to obtain correct approvals may result in prosecution.



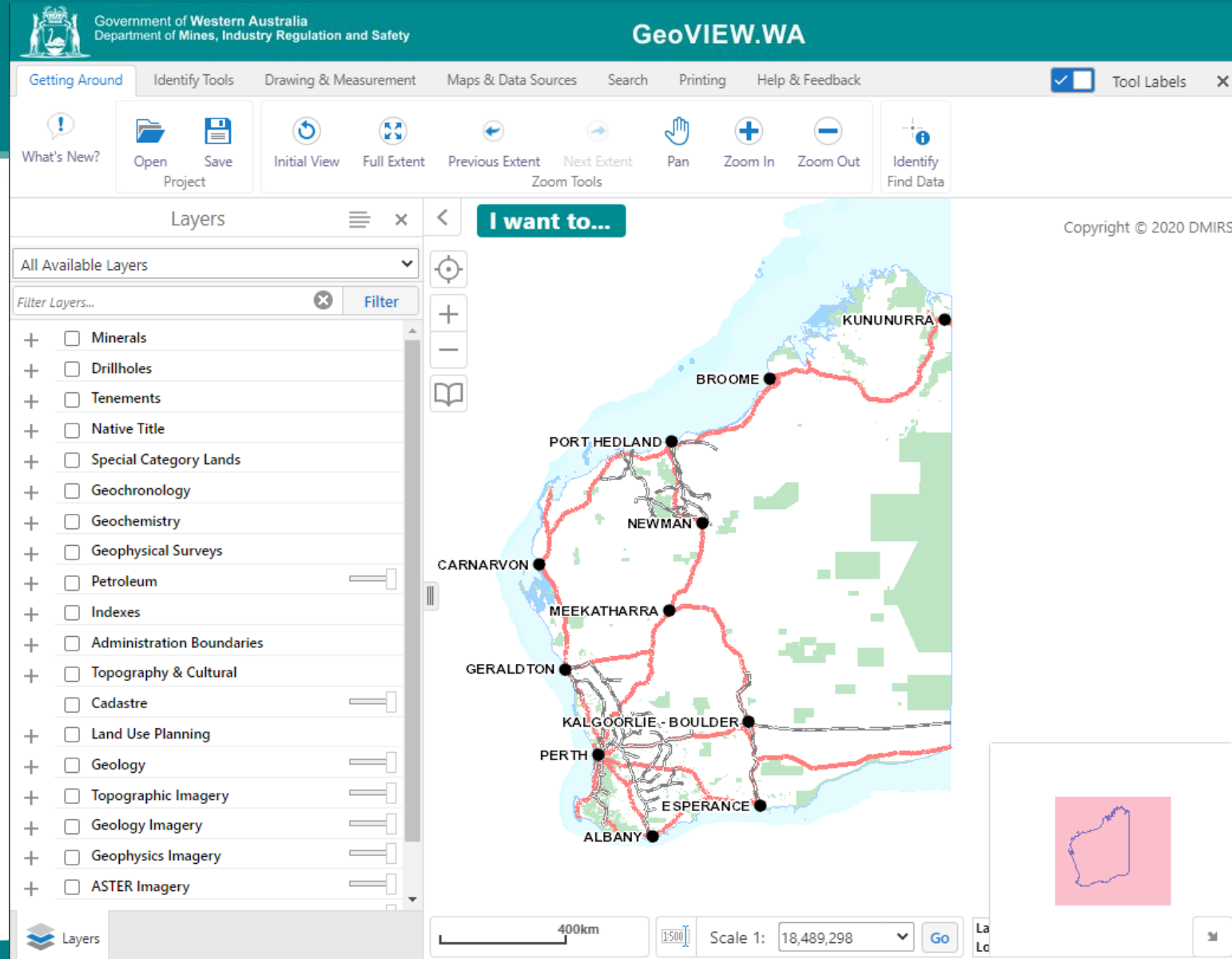


# More information

**GeoView.WA:**

**[www.dmir.wa.gov.au/geoview](http://www.dmir.wa.gov.au/geoview)**

**(Special Category Lands >  
Geoheritage Sites)**



# More information

## Geotourism:

**geotourism@dmirs.wa.gov.au**

**www.dmirs.wa.gov.au/geotourism**



## Geotourism

[Home](#) [Geological Survey of Western Australia \(GSWA\)](#) [Geology and geophysics](#) [Geology of Western Australia](#) [Geotourism](#)

Western Australia has landscapes and rocks both ancient and new, well suited to a variety of tourism experiences. The Geological Survey of Western Australia (GSWA) develops geotourism products that help travellers experience the magnificent geological heritage of the State.

Geotourism is tourism focused on geology and landscape for the purpose of providing visitor engagement, learning, and enjoyment. The geotourism products shown offer an insight into popular geological topics and localities for Western Australia. Anyone from fossickers, prospectors and students to tourists and travellers — with or without an interest in geology — can learn more about the landscape and natural environment they are visiting or travelling through.

### How can GSWA help?

- GSWA is the custodian of a wealth of geological knowledge that can be used to offer another dimension to tourism products, such as brochures, booklets, mobile apps, or on-site signage. We can provide the most up-to-date geological information for an area or verify your content.
- We collaborate with and support other government agencies in their work on geotourism, and can contribute to publication development of specific products (e.g. maps, pamphlets, flyers).
- We maintain a register of [geoheritage sites and reserves](#) in Western Australia that must be considered in the development of geotourism attractions. This can be viewed in GeoVIEW.WA (select Special Category Lands > Geoheritage Sites) or downloaded from the [Data and Software Centre](#).

Please contact us on [geotourism@dmirs.wa.gov.au](mailto:geotourism@dmirs.wa.gov.au) if you would like more information on how to work with us on geotourism projects.





# More information

## eBookshop:

[www.dmirs.wa.gov.au/eBookshop](http://www.dmirs.wa.gov.au/eBookshop)

(non-series books, posters and  
flyers, virtual tours)

Skip to Main Content

About Us | Sitemap | Accessibility | Contact Us | WA Government Search |

Government of Western Australia  
Department of Mines, Industry Regulation and Safety

eBookshop

Cart 0 items  
View Cart | Checkout

HOME ABOUT US SHIPPING HELP LOG IN SIGN UP

Search keyword, title, author, locality Go  
Advanced search | Search tips

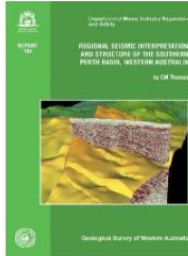
### Categories

- Book series
- Explanatory notes
- Non-series books and articles
- Geological map series
- Regolith geochemical maps
- Geophysical maps
- Other maps and atlases
- Data packages
- 3D geology
- Virtual tours
- Posters and flyers


Home - Department of Mines, Industry Regulation and Safety Bookshop Homepage

### Featured Books

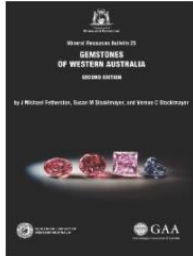
All books available as free PDFs



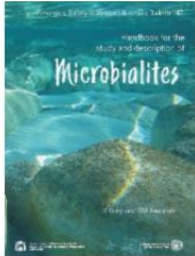
Regional seismic interpretation and structure of the southern Perth Basin  
Downloadable file




A seismic interpretation of the Broome Platform, Willara Sub-basin and Munro Arch of the Canning Basin, Western Australia  
Downloadable file



Gemstones of Western Australia  
second edition  
\$55.00  
Add to cart




Handbook for the study and description of microbialites  
\$130.00  
Add to cart



Cenozoic coal resources of southern Western Australia: exploration and evaluation history  
Downloadable file

### Featured Data Packages



# Or come visit our booth during the conference!



Sarah Martin



Angela Riganti