



*Environment Protection and Biodiversity Conservation Act 1999*

INCLUSION IN THE NATIONAL HERITAGE LIST  
OF  
ERAWONDOO HILL

I, Sussan Ley, Minister for the Environment, having considered in relation to the place and the National Heritage values described in the Schedule of this instrument:

(a) the Australian Heritage Council's assessment whether the place meets any of the National Heritage criteria; and

(b) the comments given to the Council under sections 324JG and 324JH of the *Environment Protection and Biodiversity Conservation Act 1999*; and

being satisfied that the place described in the Schedule has the National Heritage values specified in the Schedule, pursuant to section 324JJ of the *Environment Protection and Biodiversity Conservation Act 1999*, include the place and the specified National Heritage values in the National Heritage List.

Dated 11 / 06 / 2020

Sussan Ley  
Minister for the Environment

## SCHEDULE

### WESTERN AUSTRALIA

#### Shire of Murchison

##### Erawondoo Hill:

About 260ha comprising an area bounded by a line commencing at the intersection of MGA point 498474mE 7107000mN (Zone 50), then via straight lines joining the following MGA points consecutively: 500673mE 7107000mN, 500673mE 7106420mN, 499950mE 7106330mN, 499680mE 7106230mN, 499270mE 7105980mN, 499270mE 7105000mN, 498475mE 7105000mN, then northerly to the point of commencement.

	<b>Criterion</b>	<b>Values</b>
(b)	the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history	Erawondoo Hill, located in the Jack Hills, Western Australia, is the discovery site and largest in situ repository of the oldest terrestrial material known to exist on Earth. Zircon crystals in excess of 4 billion years old have been found at the site, the oldest of which has been dated to 4404(±8) million years, only 120 million years younger than the age of the Earth itself. There is nowhere else in Australia or anywhere else on the planet where zircon crystals in excess of 4 billion years old occur in such abundance. In addition, it is the only place where crystals up to 4.4 billion years old have been discovered, making it a globally unique site of international significance.
(c)	the place has outstanding heritage value to the nation because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history	Erawondoo Hill is one of the world's most important sites for ongoing research into the origins of the Earth. It is regularly visited by Australian and international geologists and is at the cutting edge of scientific research in relation to early Earth processes, involving the latest theories and techniques. Since their discovery in the early 1980s, extensive analysis of thousands of zircon crystals from Erawondoo Hill and the surrounding sedimentary rock sequences has produced a substantial body of work which has revolutionised scientific thinking on the nature and processes of the earliest phases of Earth's history. The 'Cool Early Earth' theory, based substantially on information derived from the Erawondoo Hill zircons, suggests that cooler temperatures, continental crust and liquid water developed much earlier than previously thought, which has implications for the evolution of life itself. With ongoing research opportunities and advances in scientific technologies, the potential for further remarkable discoveries can be expected well into the future.