

Site Watch

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Introduction

In late 2011, the WA Department of Aboriginal Affairs (DAA) announced a reform of the *Aboriginal Heritage Act 1972* (Western Australia). With demand for mineral exploration and extraction at all-time high, avoidance of harm to Aboriginal sites had become relatively complex and demanding. Rather than devote more resources to site protection, the Government proposed to reduce the level of protection and streamline the requirements for compliance.

Among other measures, Aboriginal heritage sites would be registered as sites under s5 of the Act according to a more stringent definition of significance. Previously s5 of the Act had been interpreted such that most sites were registered. That situation changed rapidly in 2012 and 2013. By 2014 many Aboriginal stakeholders reported many previously registered sites had lost registration status. Analysis in 2014 indicated that potentially more than 1500 sites had been de-registered in the Pilbara alone.

The DAA Register of Places and Objects is composed of 32,347 heritage places, currently divided into Registered Sites, Lodged, and Stored Data. Registered sites have been assessed by the Aboriginal Cultural Materials Committee and accepted as a site under s5 of the Act by the Minister for Aboriginal Affairs. Lodged places are considered as possible sites, in that they are to be considered (or re-considered) by the ACMC. Stored data refers to heritage places that have been assessed by the ACMC and determined by the Minister not to be a site under s5. The data is retained in the register for information and to allow for any revisions. Any site other than Stored Data is protected under the Act, whether known about or not.

Because many of the status changes were complex, and information from DAA has been minimal, we developed a means of monitoring the changes using a Geographical Information System (GIS). We called our project “Site Watch” in recognition of State government initiatives that have benefitted stakeholders in other areas, such as Fuel Watch.

Methods

The DAA has long provided its register data in GIS formats (shapefile, tabfile, etc) for free download for anyone wishing to map heritage sites. We used 13 privately archived downloads dating from July 2008 to January 2015. We compiled the data into one geodatabase with 452,000 records and normalised the data codings to account for minor terminological changes, such as “L” in 2010 meaning the same as “Lodged” in 2014, etc. We then queried some of the changes by region, site status, and site type. Site type is another way of categorizing sites, in addition to status, and refers to the various components that comprise the heritage value of a place. For example, a place may have an artefact scatter and a mythological component.

Results

We confirmed that relative to other years, a very large number of sites were de-registered in the period 2012-2014. These sites are now listed as either “Lodged” or “Stored data”. Unsurprisingly given the strong relationship between mineral exploration and heritage site survey, the vast majority of all status changes occurred in the Pilbara, where most of Western Australia’s iron ore resources are located (Figure 1, Map 1). The number of status changes was surprising. In the seven years overall, the DAA records reflect 14,419 site status changes made to 10,711 sites (i.e. 3,708 sites had more than one status change). Submissions of new data led to 8,086 places being added to the register. Because we do not have continuous Register data,

these are minimum numbers: some changes could have been made and reversed between our download dates.

The changes may be broken down as follows:

De-registrations

In 2009-2011, *before* public consultation began over heritage reform, at least 1,469 registered sites were listed as a new status, "Information Assessed" (Fig. 2, Table 1). This status was in use in 2009, but not publicised until 2010-2012. According to DAA documents downloaded in 2010-2012, it meant that a site submission had been assessed by DAA support staff, but not by the ACMC. In fact by definition of their role and responsibilities, the ACMC must have already seen all 1,469 of the registered sites that changed, which is the basis by which these sites were in the DAA database in the first place. The "Information Assessed" category acquired additional sites from other status changes and new data. Then, in 2012, 2,960 "Information Assessed" sites were classed as Lodged, 112 were registered, and 7 were classed as Stored. Most of these sites are still in the Lodged category.

In 2013, another separate set of at least 1,486 registered sites was moved directly to Stored Data.

In short, in 2009-2013, the DAA decided that 2,955 registered sites that had already passed ACMC review should be re-assessed, and half of these sites were deemed "Stored Data / Not A Site" even though the ACMC had previously identified them as sites. In the entire 7 years (2008-2015), at least 3,207 sites lost registration status. The total number of sites in the Stored Data category increased from 2,202 to 5,661. Currently there is no summary data that shows whether these are de-registered because they have been physically removed from the landscape, or because the interpretation of site definitions has changed.

Renaming the backlog

In 2014 the status "Insufficient Information" was abolished, and accordingly some 4,576 sites were moved to "Lodged" status, which is similar for all intents and purposes (Fig. 3). As of 15 June 2015, the "Lodged" category now boasts 12,637 sites, and the rate of assessment is declining (Fig. 4). Accounting for the name change, this represents a 35% increase from 2008 (when there were 4,702 Lodged sites and 4,611 Insufficient Information sites) when the present state government came into office.

New data

A considerable quantity of new data appeared as a result of heritage surveys and ensuing site submissions (Table 2, Fig. 5). Of the 8,086 sites that appeared for the first time in the register, about 2,751 were registered, 3,626 were Lodged or considered "Insufficient Information, and 1,166 became Stored Data. Consistent with recent questions in Parliament, the proportion of new submissions that became registered sites dropped dramatically between 2010 and 2011, from 65% to 15%. In 2012, just 8% of new submissions were registered. Before 2012, less than 17% of new submissions were assessed as "Stored Data / Not A Site". In 2013, this "rejection" rate doubled to 34%, and in 2014 it rose to 86% of new submissions, the inverse of 2008-2011.

Invalid changes

Some 1,729 site records (5%) defy logical expectations. Examples include sites that had a blank record with unspecified status, stored data sites that became registered or lodged, sites that changed status frequently (up to five times), sites that disappeared and then re-appeared in the record, and sites that disappeared

completely from the record and have not re-appeared as of June 2015. All of these ‘invalid’ changes would have caused concern for stakeholders and for proponents doing due diligence checks during the last few years, and therefore undermine certainty today, as there is no explanation of any status changes in DAA summary data. Most of these ‘invalid’ changes occur in intensive mining areas.

A bias against artefact scatters and scarred trees

Breaking the changes down by site type (Table 3, Fig. 6), 50% of all status changes were to sites that include artefact scatters (making up 58% of all places in the Register). Within the various types, the greatest proportional movements were in the “modified (scarred) tree” category. In 2013-2014, the breadth of changes increased, with numerous status changes occurring within most types.

As a subset of all status changes, de-registrations are biased towards artefact scatters. In the seven year period from 2008 to 2015, 2,637 (82%) of the 3,207 sites that lost registration status were sites containing artefact scatters – out of proportion to their 58% representation in the Register. Of these, 1,528 artefact scatter sites became Stored Data, and 1,106 artefact scatter sites temporarily became “Information Assessed” before mostly becoming Lodged.

As for the most culturally sensitive sites, 69 sites with a mythological component were de-registered, and 31 with a ceremonial component were de-registered (17 sites have both components; 83 separate sites are affected). Specific site data can be extracted and checked with stakeholders if desired. Despite making up a relatively small number, the changes to mythological and ceremonial sites are significant because many of the affected sites cover extensive areas.

Discussion

The Site Watch data demonstrate unprecedented changes in the Register of Places and Objects (formerly the Site Register). In 2008-2015, 14,419 decisions over *existing* site status occurred in the Register – 93% of these decisions occurred in 2010-2014, and 34% in 2014 alone. Many decisions would have been assessed by the ACMC in its monthly meetings. However, considering ACMC meetings shortened within the period, and its membership has declined, it is hard to conceive that many decisions were given much consideration.

The scale of changes also begs the question, is the work involved an appropriate use of government resources? There has been a 35% large increase in the number of Lodged sites, i.e. needing a decision – yet at least 1,469 of these sites had already been assessed and registered. As a result of this ACMC “double-dipping”, and a high rate of site submissions in 2008-2012, the backlog of 12,637 Lodged sites grew, and will take decades to address under current processes.

The vast increase in the “Stored Data / Not A Site” category might suggest an increase in certainty, but not in reality, since stakeholders might reasonably be expected to disagree with many decisions. They might have been consulted about use of sites, but they probably have not been consulted not about de-registration. Disagreement leads to increased uncertainty, affecting miners, developers and other government agencies. Uncertainty is also increased by the frequency, illogicality and unpredictability of many changes and will not assure business and heritage stakeholders that their interests are protected.

The thousands of changes mean that stakeholders can only be broadly aware of the impacts in their regions. The Minister has said that Aboriginal traditional owners can track the site changes on the DAA website. As heritage and GIS professionals, we have spent >150 hours pro bono on this project. It is unrealistic to expect that an Aboriginal stakeholder or representative organisation can devote equivalent

resources to tracking changes to register data – data that they might reasonably have expected to remain unchanged. Stakeholders might also reasonably expect notification about changes to site status, but notification is unlikely to have occurred over all the 14,419 (or more) decisions. Some accountability can be introduced by adding tenement data to the GIS (Maps 1, 2).

The scale of changes shows that heritage sites form a continuous landscape. In some of the areas most affected by de-registrations, the gaps between heritage sites are smaller than the sites themselves (Map 2). The numerous ways in which the current Government has failed to update the Act includes a failure to recognise landscape-scale heritage, and make decisions about minimizing harm by use of such landscapes. Five years ago, the regulator accepted all but 10% of site submissions. Now, despite the law and regulations remaining unchanged, the same regulator disagrees with 86% of submissions. A more realistic handle on the situation would be to accept that heritage is continuous and ubiquitous, and to uphold and enact laws on that basis.

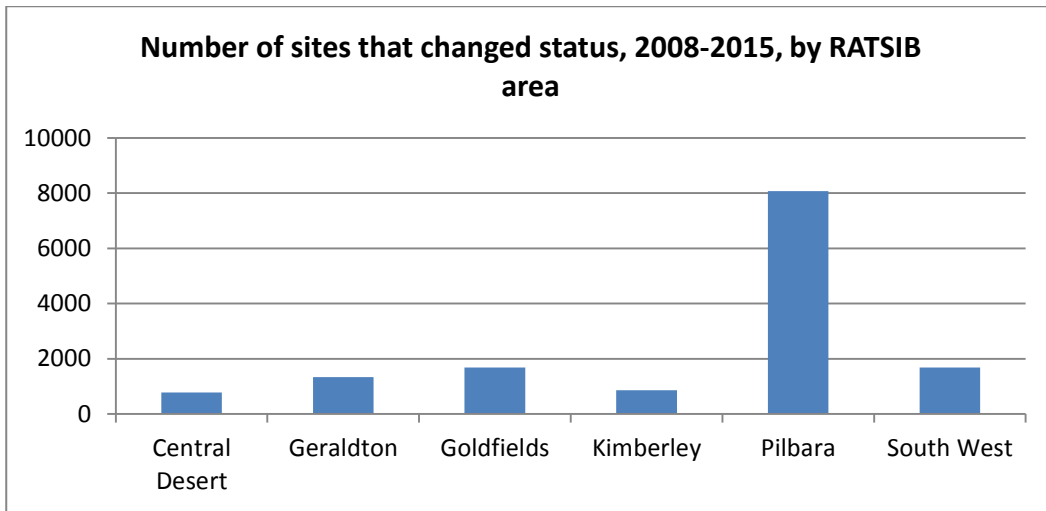


Figure 1: where the site status changes occurred

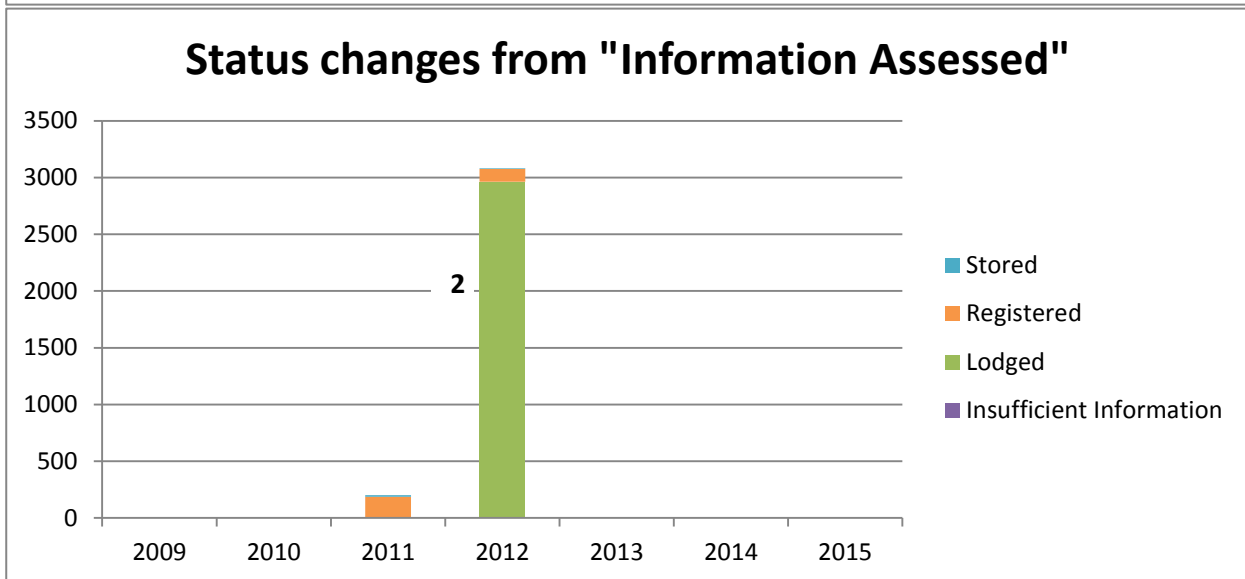
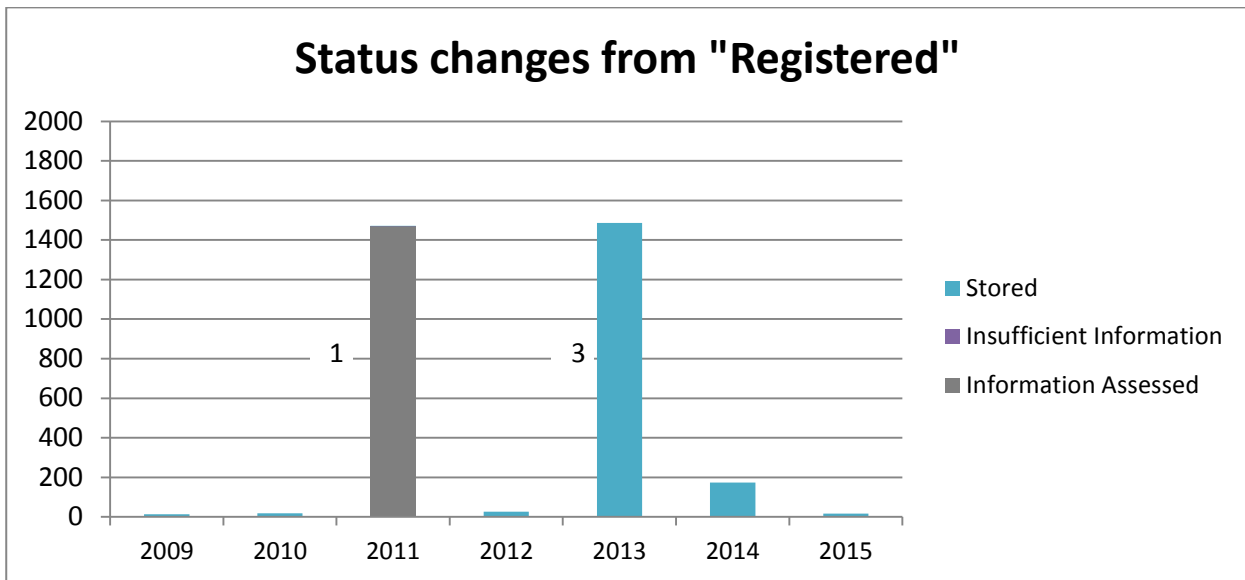


Figure 2: moving registered sites into "information assessed" (1) and from there to "lodged" (2); moving more registered sites to "stored data" (3)

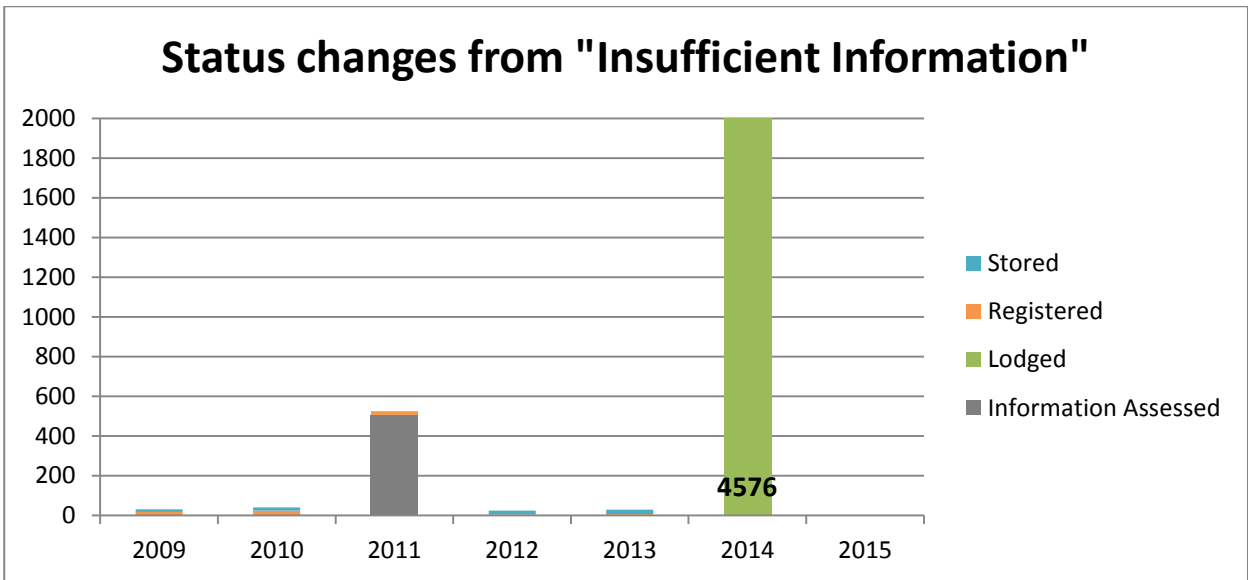


Figure 3: Renaming "Insufficient Information"

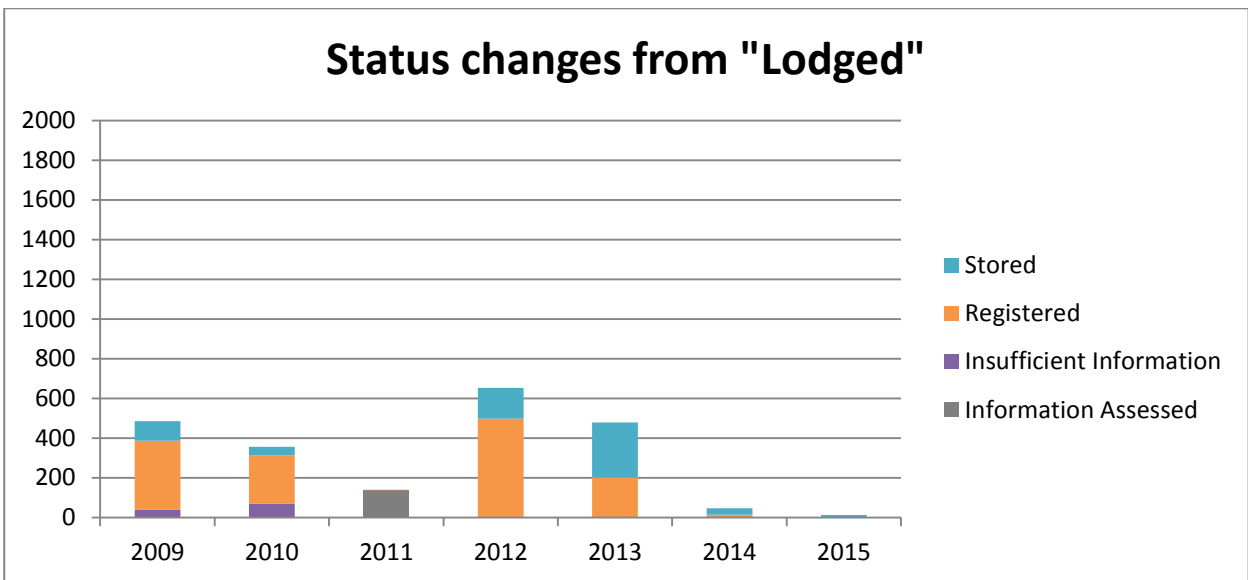


Figure 4: Lodged sites become less likely to be registered and more likely to become Stored Data (2011-2013); then they become less likely to be assessed at all (2014-2015)

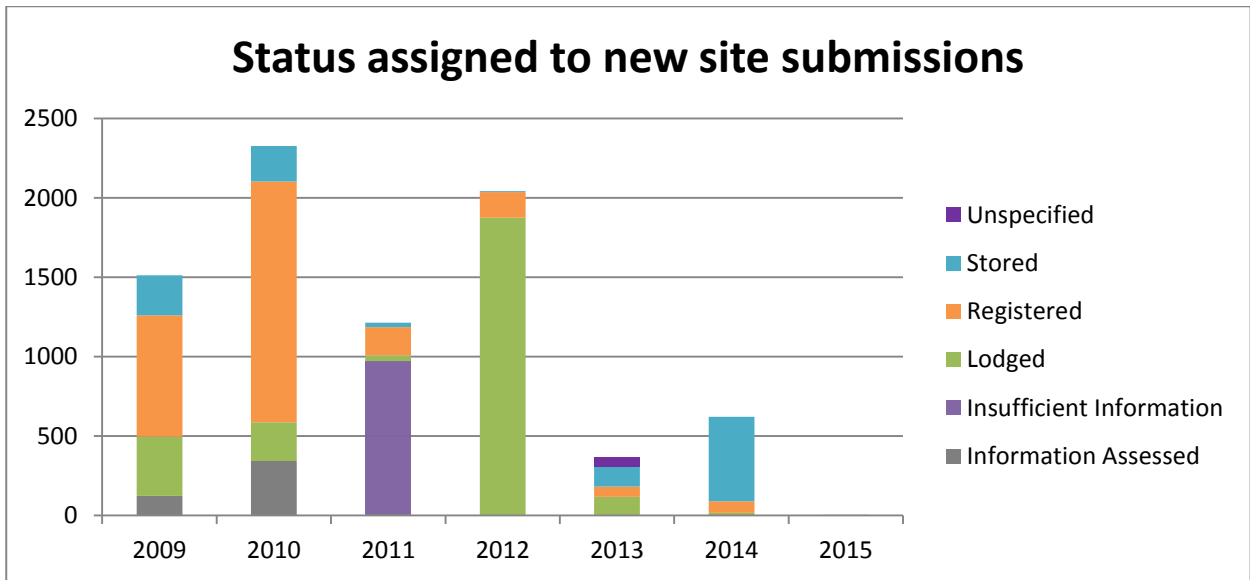
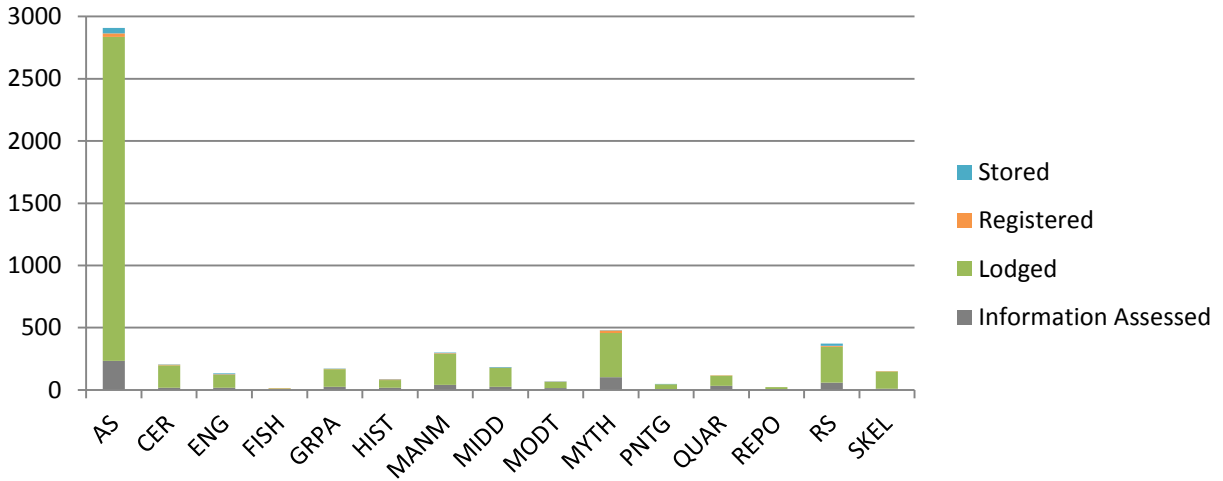
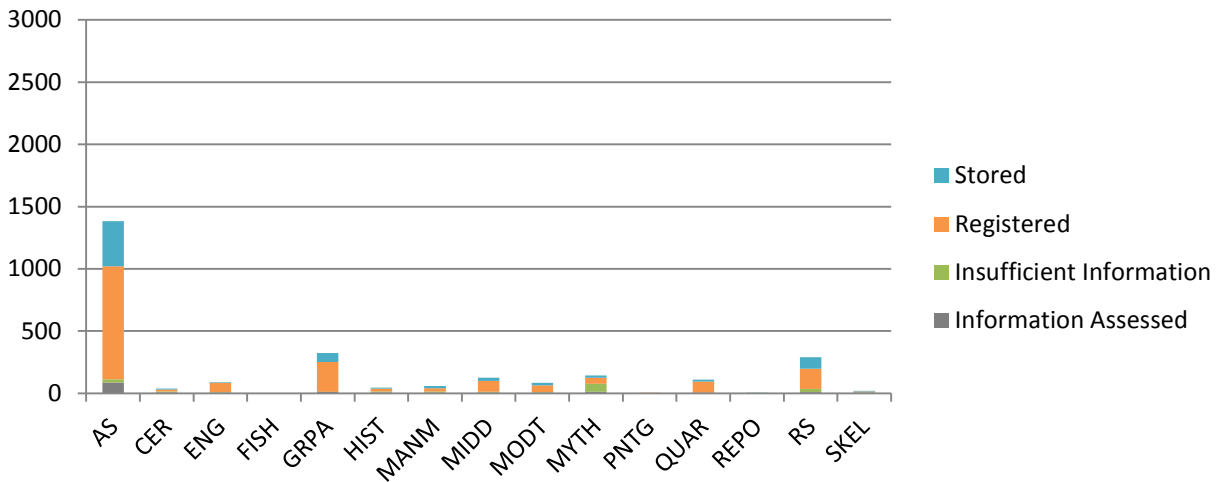


Figure 5: New site submissions become less likely to be registered, then decline sharply and are more likely to become stored data

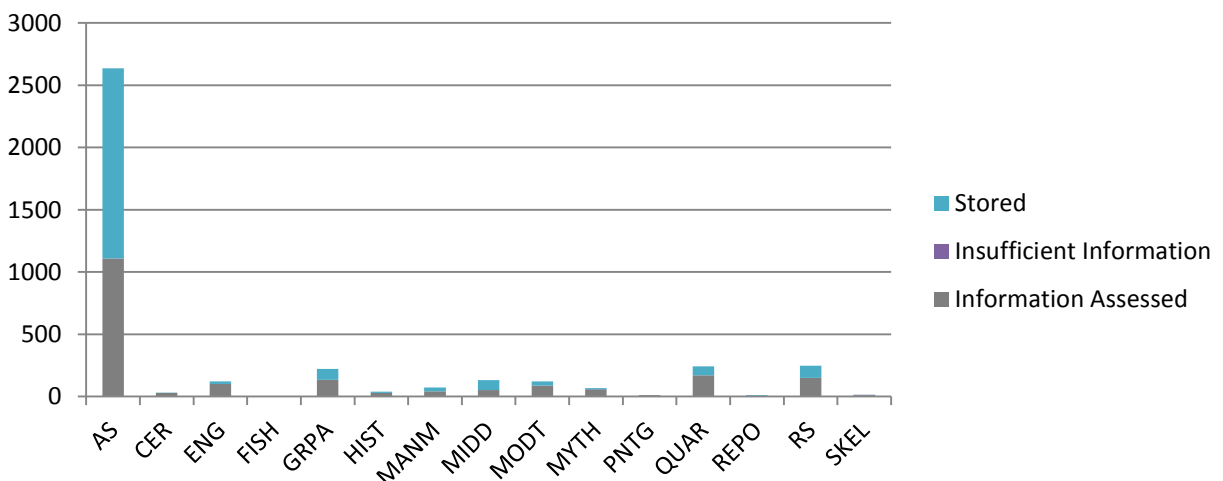
Status changes by site type, from "Insufficient Information" status, 2008-2015



Status changes by site type, from "Lodged" status, 2008-2015



Status changes by site type, from "Registered" status, 2008-2015



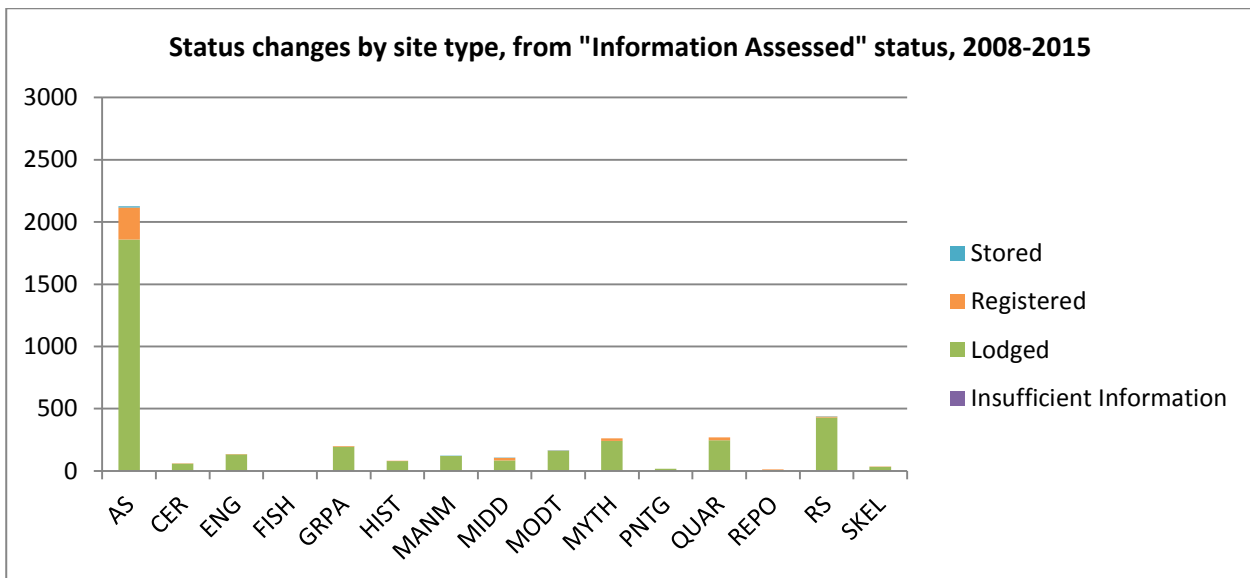


Figure 6 (preceding four graphs): Site status changes by sites that include a given site type

Site Type Abbreviations

AS	Artefacts / Scatter
CER	Ceremonial
ENG	Engraving
FISH	Fish trap
GRPA	Grinding patch
HIST	Historical
MANM	Man-made structure
MIDD	Midden
MODT	Modified tree
MYTH	Mythological site
PNTG	Painting
QUAR	Quarry
REPO	Repository / cache
RS	Rockshelter
SKEL	Skeletal / burial

Changed from	Changed to	2009	2010	2011	2012	2013	2014	2015
Information Assessed	Insufficient Information	0	0	1	3	0	0	0
Information Assessed	Lodged	0	0	0	2960	0	0	0
Information Assessed	Registered	0	0	187	112	0	0	0
Information Assessed	Stored	0	0	12	7	0	0	0
Insufficient Information	Information Assessed	0	0	507	0	0	0	0
Insufficient Information	Lodged	0	0	0	0	0	4576	0
Insufficient Information	Registered	18	24	14	5	7	1	0
Insufficient Information	Stored	13	16	4	19	22	6	0
Lodged	Information Assessed	0	0	137	0	0	0	0
Lodged	Insufficient Information	40	69	1	4	2	0	0
Lodged	Registered	348	244	2	494	202	15	0
Lodged	Stored	98	43	0	155	275	32	14
Registered	Information Assessed	0	0	1469	0	0	0	0
Registered	Insufficient Information	1	0	2	3	0	0	0
Registered	Stored	13	18	1	24	1486	174	16
Stored	Information Assessed	0	0	268	0	0	0	0
Stored	Insufficient Information	1	6	1	6	0	0	0
Stored	Registered	2	4	7	8	2	0	0
Unspecified	Lodged	0	0	0	0	0	1	0
Unspecified	Registered	0	0	0	0	2	28	0
Unspecified	Stored	0	0	0	0	32	142	0
	TOTALS	534	424	2613	3800	2030	4975	30

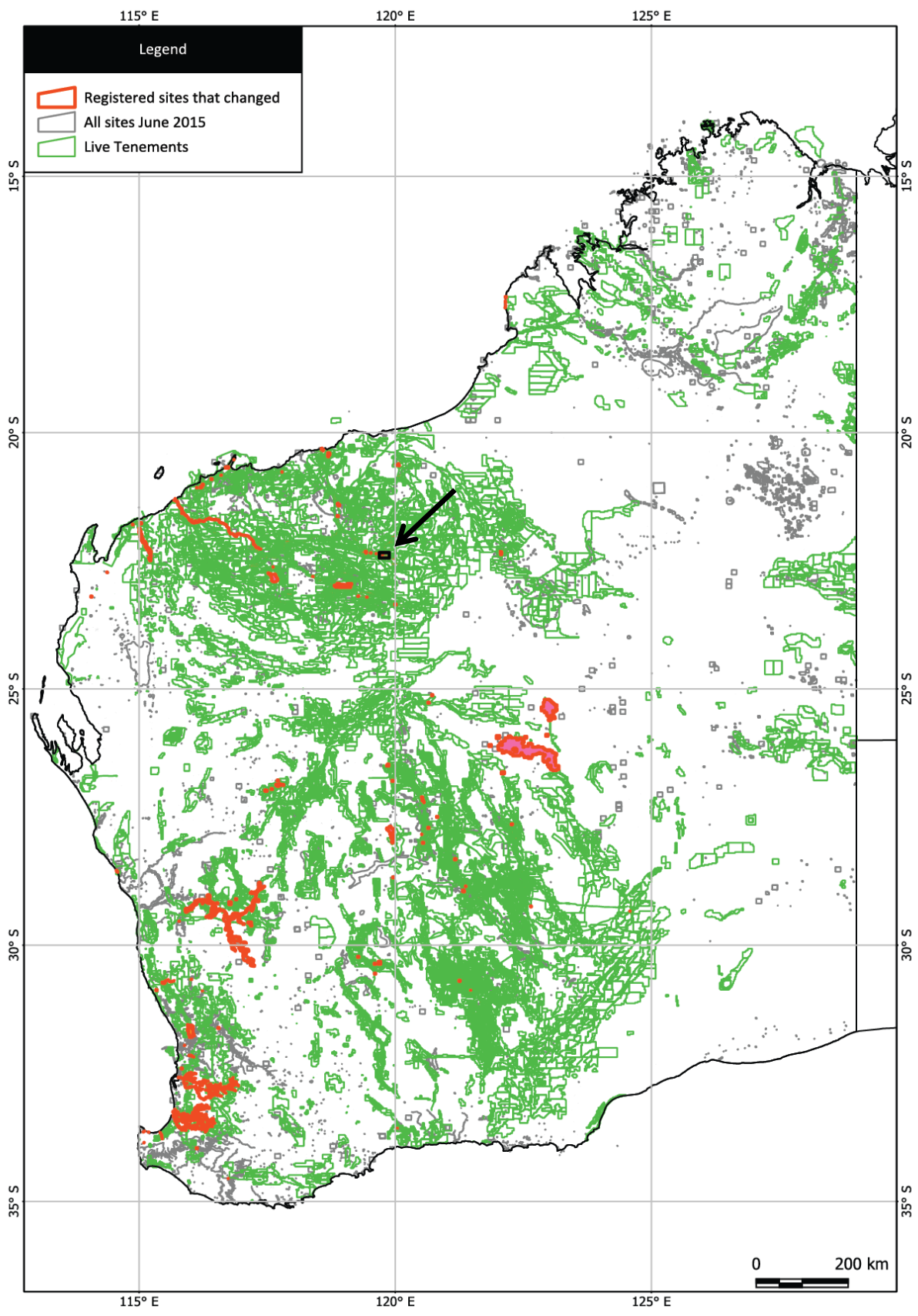
Table 1: Changes to site status

Changed from	Changed to	2009	2010	2011	2012	2013	2014	2015
New to register	Information Assessed	123	343	12	1	0	0	0
New to register	Insufficient Information	0	0	960	0	0	0	0
New to register	Lodged	374	244	37	1874	117	16	4
New to register	Registered	762	1515	177	160	64	73	0
New to register	Stored	252	223	27	7	125	532	0
New to register	Unspecified	0	0	0	0	64	0	0
	TOTALS	1511	2325	1213	2042	370	621	4

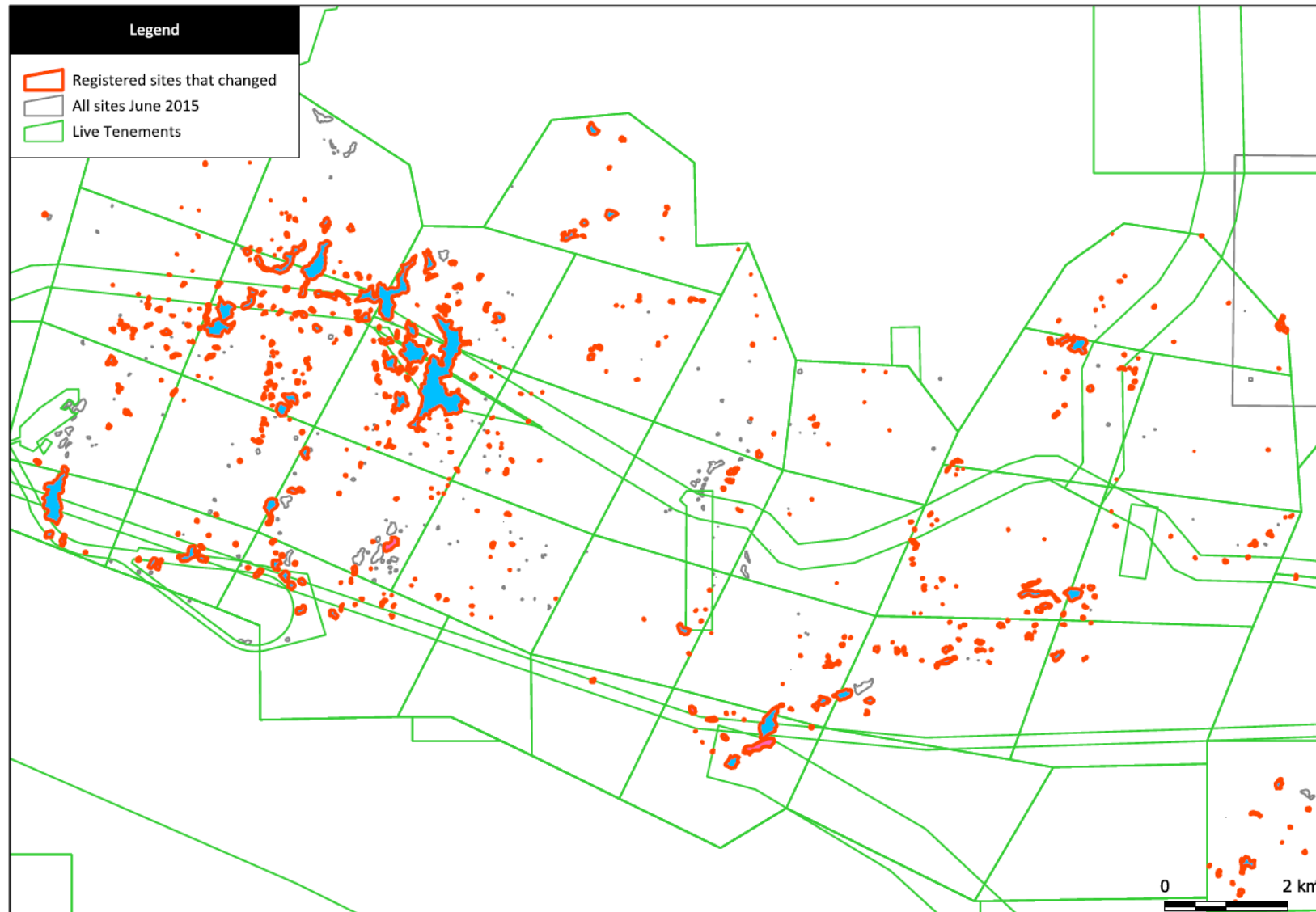
Table 2: Status assigned to new site submissions

Change from	Change to	AS	CER	ENG	FISH	GRPA	HIST	MANM	MIDD	MODT	MYTH	PNTG	QUAR	REPO	RS	SKEL
Information Assessed	Insufficient Information	2	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Information Assessed	Lodged	1858	58	133	5	195	78	121	84	161	241	17	247	8	428	33
Information Assessed	Registered	256	2	1	0	5	1	0	21	3	19	0	21	3	8	1
Information Assessed	Stored	11	0	0	0	0	0	1	2	1	0	0	0	0	2	0
Insufficient Information	Information Assessed	234	16	16	1	26	16	39	25	14	102	1	33	3	59	9
Insufficient Information	Lodged	2603	180	105	10	141	62	250	151	49	356	45	81	18	287	140
Insufficient Information	Registered	29	7	4	1	1	6	7	1	1	19	0	3	0	9	1
Insufficient Information	Stored	43	2	7	0	1	3	5	4	1	4	1	0	0	16	0
Lodged	Information Assessed	87	6	3	0	12	7	3	4	3	13	0	3	0	10	6
Lodged	Insufficient Information	25	9	6	0	1	8	11	8	6	62	0	2	0	26	3
Lodged	Registered	908	14	75	0	238	23	27	87	55	49	3	88	1	162	6
Lodged	Stored	364	8	6	0	72	8	17	27	21	18	0	16	1	91	4
Registered	Information Assessed	1106	29	101	1	135	29	42	52	88	57	12	170	5	150	11
Registered	Insufficient Information	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Registered	Stored	1528	2	21	0	88	10	32	80	33	11	0	72	6	99	3
Stored	Information Assessed	139	1	4	0	11	4	20	1	28	20	0	4	0	15	0
Stored	Insufficient Information	8	0	3	0	1	0	1	0	0	0	0	0	0	1	0
Stored	Registered	14	0	0	0	1	1	1	6	0	3	0	0	2	0	0
Unspecified	Lodged	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Unspecified	Registered	16	0	12	0	2	0	2	0	0	0	0	4	0	0	0
Unspecified	Stored	146	1	2	0	2	1	2	0	3	4	0	8	0	19	0
	TOTAL	9380	335	499	18	932	257	581	553	467	980	79	752	47	1384	218

Table3: Status changes by sites with a given type – due to the existence of multi-component sites, each set (column) overlaps with other sets



Map 1: Western Australia, showing the registered sites that changed status in 2008-2015 (red outlines) and relationship to mining tenements. Black box (arrowed) denotes extent of Map 2.



Map 2: Example of extensive and ubiquitous heritage sites in mining tenements, including a large number with changed status (red outlines; pink infill indicates information assessed; blue stored data)