

From: **EPBC Referrals** <EPBC.Referrals@environment.gov.au>  
To: **Compliance** <Compliance@environment.gov.au>  
CC: **EPBC Referrals** <EPBC.Referrals@environment.gov.au>  
Subject: FW: Greater bilby in west Kimberley [SEC=UNCLASSIFIED]  
Date: 07.09.2017 09:14:25 (+1000)  
Attachments: Greater bilby LaGrange region.docx (4 pages), Greater bilby northwest WA.eml (1 page)

Hi compliance,

FYI – potential compliance matter in WA. Grateful if you could please respond to s47F and CC Referrals gateway in your response.

Kind regards,

s22

Referrals Gateway

Department of the Environment and Energy

P: s22 | E: s22@environment.gov.au

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**From:** s47F [mailto:s47F@dbca.wa.gov.au]  
**Sent:** Wednesday, 6 September 2017 6:33 PM  
**To:** EPBC Referrals <EPBC.Referrals@environment.gov.au>  
**Subject:** Greater bilby in west Kimberley

Hello

Please find attached information I have collated relating to potential significant impact to the Greater Bilby in north western Australia which to date has not been referred to or assessed by the Western Australian EPA.

Should you have any queries please feel free to contact me on s47F.

Regards

s47F

Operations Officer

West Kimberley District

**Parks and Wildlife Service (WA)**

111 Herbert St | PO Box 65 Broome 6725

Phone: s47F Fax: s47F

s47F@dbca.wa.gov.au



***We're the people and places you know, but with new-look email addresses***

From early July 2017 we'll be moving to an updated IT system as part of the new Department of Biodiversity, Conservation and Attractions (DBCA). This means email addresses for staff at Kings Park and Botanic Garden, Bold Park, Rottnest Island, Perth Zoo and the former Department of Parks and Wildlife will now carry the domain @dbca.wa.gov.au

I would like to raise major concerns over potential significant impact to the greater bilby (*Macrotis lagotis*) due to native vegetation clearing in the La Grange Region in northwest Western Australia associated with irrigated agriculture.

While there are separate proponents in this region, the applications for clearing have been driven by a State Government funded program ("The La Grange project") established in 2012 to investigate irrigated agriculture development in the La Grange area, south of Broome, Western Australia. The Department of Agriculture and Food, Western Australia (DAFWA) was one of the main agencies tasked with progressing the project and assessed nearly 3.5 million hectares (ha) with more than 50 000ha identified as most suitable for irrigated agriculture in the La Grange area.

This region contains remaining populations of several threatened species, one of them being the greater bilby (*Macrotis lagotis*), listed as Vulnerable under the State Wildlife Conservation Act and Commonwealth EPBC Act. With an 80% reduction in the range of this species, documented ongoing decline and a range of threats within its extant range the conservation of the bilby in remaining areas is a priority. Within the LaGrange Region, including Pardoo Station, the species predominantly occurs on pastoral leases, UCL and freehold lands with the only population in Conservation Estate in the Region within the edges of Walyarta Conservation Park. Most of these lands are degraded by cattle and subject to large unmanaged wildlife which removes and degrades habitat. Introduced predators (foxes and cats) are prevalent throughout the region.

Between 2012 and 2015 research into soil, water and heritage values were undertaken, and subsequently lessees and landholders in the region as well as Pardoo Station directly to the south, and stations to the north east and east of Broome have been supported and encouraged to develop irrigated agriculture through applications for water licences and native vegetation clearing.

Despite regional research into other values and land traits and regional biodiversity assessments (including conservation significant flora and fauna) being proposed in the original business plan in 2012 none were undertaken until May 2017. Since May 2017 an urgent request was made for regional information on threatened species due to depauperate information available while the Department of Environment and Regulation and Parks and Wildlife were trying to assess the large number, size and scale of native vegetation clearing applications by proponents in the Region.

Since June 2017 regional surveys for bilbies have been undertaken including where permission was granted on pastoral leases, while proponents are still requested to survey for the species in their development footprint. Preliminary results (unpublished, however a progress report is due to the Department of Regional Development at 30/09/17 and final report due 16/12/17) from over 300 sites surveyed indicate that the species is present in very low abundance throughout the region, with many areas of otherwise suitable habitat degraded by cattle grazing.

Within LaGrange and including Pardoo, the amount of recent, pending and proposed native vegetation clearing for pivot agriculture with sandplain habitat equates to approximate total area of over 11,000 ha. This is in a narrow band between Pardoo and Thangoo Station, which comprises low density nomadic bilby populations. Since 2015 the following applications have been or are due to be made for native vegetation clearing for pivot (irrigated agriculture), all of which have recent (<10yr) and/or current bilby recorded either within or in a 40km radius and/or contain or are likely to contain suitable bilby habitat (Table 1 and 2). Note that these figures exclude historical (pre 2000) clearing for agriculture and all hectare figures listed are on sandplain habitat suitable for bilbies. I have also attached a map showing clearing applications for two sections of LaGrange as at October 2016, excluding several applications since that time (Figure 1).

There has also been multiple cases of illegal clearing (all containing bilby habitat) in these areas within the last three years, in all cases only warnings were received and despite these, and ongoing investigations by the WA DWER, clearing permits were subsequently issued. These include Shamrock Station (120ha illegally cleared), Wallal Downs (118 ha illegally cleared), Anna Plains (20ha) and Nita Downs (67ha currently under investigation). Despite all these areas potentially having contained bilby populations, warnings issued do not serve as any deterrent and further clearing permits have been granted adjacent to or in proximity to these areas already illegally cleared.

Excluding the further impacts of clearing vegetation in the north of the region for the same purposes (see table 2), the impact to the species from this scale of clearing includes:

- direct loss of habitat

- mortality and injury from clearing operations
- increased and/or concentrated cattle grazing causing degradation and competition for resources in vegetation in areas adjacent to pivots
- fragmentation of habitat leading to increased susceptibility to introduced predators, increased isolation and decreased viability of populations.

Table 1: Recent and proposed native vegetation clearing applications containing suitable bilby habitat for pivot (irrigated agriculture), within LaGrange and Pardoo.

Lease or freehold name	Location	Application number/s (DWER)	Area (ha)	Outcomes	Timing
Wallal Downs Station (Grenleigh Pty Ltd)	Area inland and adjacent to Eighty Mile Beach Marine Park and RAMSAR sites	CPS 66971, 6950, 5166, 4390, 4563, Pivot agriculture – cattle grazing	2,600 (suitable bilby habitat) in separate applications	At least 118 ha cleared illegally (without current permit). 900ha approved.	Occuring now.
Pardoo Station	South of Wallal, north of Port Hedland	CPS 4207, 6971, Pivot agriculture – cattle grazing	Stage one 450ha, stage two 450ha	Granted in part as staged process. Preclearance surveys including collapsing burrows.	Stage one cleared. Stage two Occuring now.
Nita Downs	East of Great Northern Highway extending to a large inland area	CPS 7122 and 7043, Pivot agriculture – cattle grazing	1160 applied for, reduced area of 800 ha applied for in second stage	About to be granted on an active bilby site, subject to preclearance surveys, collapse of burrows. Access denied for majority of regional bilby surveys. 67ha illegally cleared under investigation.	About to be granted. Site was heavily grazed prior to any biodiversity surveys and subsequently an exemption was requested due to 'degraded condition'
Shelamar	East of Great Northern Highway	CPS 6962, plus previous clearing, Pivot agriculture – cattle grazing and mixed horticulture	1470, in total with exisiting pivots 2,070 ha	Application for 1470 ha rejected as targeted biodiversity surveys refused. Will be resubmitted. Known bilby population.	Pending resubmitting.
Shamrock	East of Great Northern Highway	CPS 5517, 4302, 3421_1, 2 scaled stages up to 3000ha. 2,200 previous clearing	5,200	Access denied to Government for majority of regional bilby surveys.	3000ha Pending submission
Anna Plains (Stoates)	South east area	Pivot agriculture – cattle grazing	120, additional 20ha cleared illegally		Footprint surveys completed
Frazier Downs					Yet to be submitted.

Table 2: Other applications for irrigated agriculture in bilby habitat in the West Kimberley adjacent or near LaGrange.

Lease or freehold name	Location	Application number/s (DWER)	Area (ha)	Outcomes	Timing
Roebuck Plains	East of Broome townsite	Pivot agriculture	200ha plus buffers	Yet to be submitted	Fauna surveys completed
Kimberley Asparagus Pty Ltd	East of Broome townsite Lots 501-509, 511 and 512 on Deposited Plan 56733, and Lot 454 on Deposited Plan	CPS 7311/1 (Asparagus farming)	678	Pending	Fauna survey completed for 100ha, dispute relating to the remainder of surveys

	40702, Roebuck.				
Mowanjum	East of Broome, south of Derby	6084/1-4 Pivot agriculture – cattle grazing	Original area 800ha, rejected without surveys completed, reapplied for 116ha. The project proposal as per DAFWA documents is for 4,100ha.	Granted without any requirement for survey flora or fauna.	Now.
Kilto	Dampier Peninsula	Pivot agriculture – cattle grazing	1,240	Submitted 19/02/17	
GoGo Station	Fitzroy Valley		10,000	Pending submission, will likely be referred to EPA	

The secondary and subsequent impacts from the landuse once these permits are granted is as follows:

- habitat fragmentation leading to increased susceptibility to feral predators, reduced viability of bilby populations.
- where pivots are designed for cattle grazing, they allow for increased cattle density within and adjacent to cleared areas, increasing degradation of bilby habitat through trampling and competition for resources
- increased feral predator abundance (foxes in particular, which are known to be a major contributor to regional bilby extinctions and declines) associated with availability of water through irrigation, and other prey species
- annual legal 5 ha of native vegetation clearing around these areas leading to greater disturbance and fragmentation.

Given this, I believe the drive for pivot agriculture in the region likely constitutes a significant impact to bilby populations that requires assessment beyond the individual or separate application level and beyond what the State Government agencies are currently undertaking. Note that 50,000 ha has been deemed suitable to develop, and while there is thought to be insufficient water available to irrigate this total area, thousands of hectares above the 11,000 ha in application or proposed may be a risk. I would feel remiss in my current duties without bringing this to your attention. The problem to date has been that applications have not been deemed of large enough size and/or have not been collectively assessed to determine and consider broader and secondary effects of this level of clearing. Applicants are also aware of this and have been supported by State Government Departments in spreading their clearing footprint areas over multiple applications in space and time to reduce the perception of a significant impact. I am also deeply concerned that the current political and economic climate in Western Australia and particularly in northern Australia has created reluctance and avoidance to adequately consider the species in these developments, including but not limited to:

- granted clearing permits without a targeted survey for areas up to 116ha
- granting multiple permits for reduced clearing areas with a large total area
- granted clearing permits over active bilby populations with only preclearance surveys including collapsing of burrows, with no offsets for lower stocking rates, revegetation etc under Part 5 of the EPA 1986 (Environmental offsets for native vegetation clearing permits).

However with disregard for consideration of the direct and cumulative effects on bilbies from pivot agriculture, the species is at risk of regional extinction.

As such I would like to know whether proponents, either individually or as an umbrella project, should be self-re-ferring or be referred by the Commonwealth Government for assessment for significant impacts to bilbies under National Threatened species legislation (EPBC Act). Can you please advise what approach may best be taken with what seems to be occurring at the moment, ie applications in isolation may not be sufficient to warrant consideration as a significant impact to populations (eg application areas of 500 ha or less), however collectively these impacts may be much greater and thus should somehow be assessed appropriately.

Please do not hesitate to contact me to discuss any of this further

Regards,

s47F

**Attachments:**

Dept of Agriculture and Food (2016) Preferred areas for irrigation in La Grange FACTSHEET.

Figure 1: Map of section of clearing applications up to October 2016 within the LaGrange region.

From: s47F s47F @dbca.wa.gov.au>  
To: **EPBC Referrals** <EPBC.Referrals@environment.gov.au>  
Subject: Greater bilby northwest WA  
Date: 06.09.2017 09:15:06 (+0000)

My apologies, this the URL for the attachment on the LaGrange irrigated agriculture project.

<https://www.agric.wa.gov.au/sites/gateway/files/La%20Grange%20Preferred%20Area.pdf>





Department of  
Agriculture and Food



# Preferred areas for irrigation in La Grange

## FACTSHEET



Supporting your success

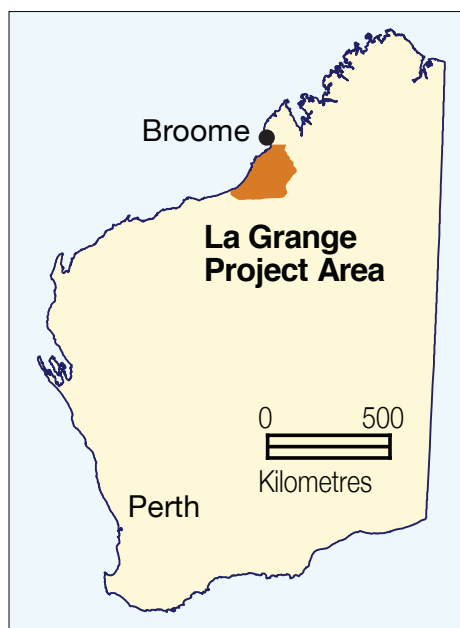


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# Preferred areas for irrigation in La Grange

## FACTSHEET



**The La Grange project was established in 2012 to investigate irrigated agriculture development in the La Grange area, south of Broome, Western Australia.**

The project aimed to define industry and culturally appropriate land and water resource development options to support the expansion of irrigated agriculture in the region.

The Department of Agriculture and Food, Western Australia (DAFWA) assessed nearly 3.5 million hectares (ha) and identified more than 50 000ha which is most suitable for irrigated agriculture in the La Grange area.

DAFWA used a combination of new datasets to define the preferred areas, including soils, groundwater, infrastructure, tenure and cultural and environmental information.

## Did you know?

- The La Grange area encompasses seven pastoral properties, three traditional owner groups and two horticultural businesses.
- The Broome Sandstone aquifer is the source of groundwater for irrigated agriculture within the La Grange area.
- The aquifer is roughly four times the size of the Perth metropolitan area.
- The current La Grange water allocation plan allows for 50 gigalitres of water per year for consumption across the region.
- This volume of water could irrigate up to 5000ha if 10 megalitres per hectare was used per year.
- The soil in the project area is locally referred to as 'Pindan', a term also used to describe the red sandy landscape of the region.
- DAFWA's land capability classification system was used to determine 'preferred' and 'non-preferred' Pindan soils for irrigated agriculture.
- Saline and fresh water of the Broome Sandstone aquifer meet underground near the coast. This 'interface' is marked as a yellow line on the preferred areas map (Figure 1).
- Installation of production bores too close to the saltwater interface could cause saltwater intrusion.
- More than 140 wetlands were mapped within the La Grange area. These wetlands have high cultural and environmental significance. Forty-three of these wetlands are within shallow groundwater zones and provide insight into the link between groundwater and surface water, and potential impacts of use.





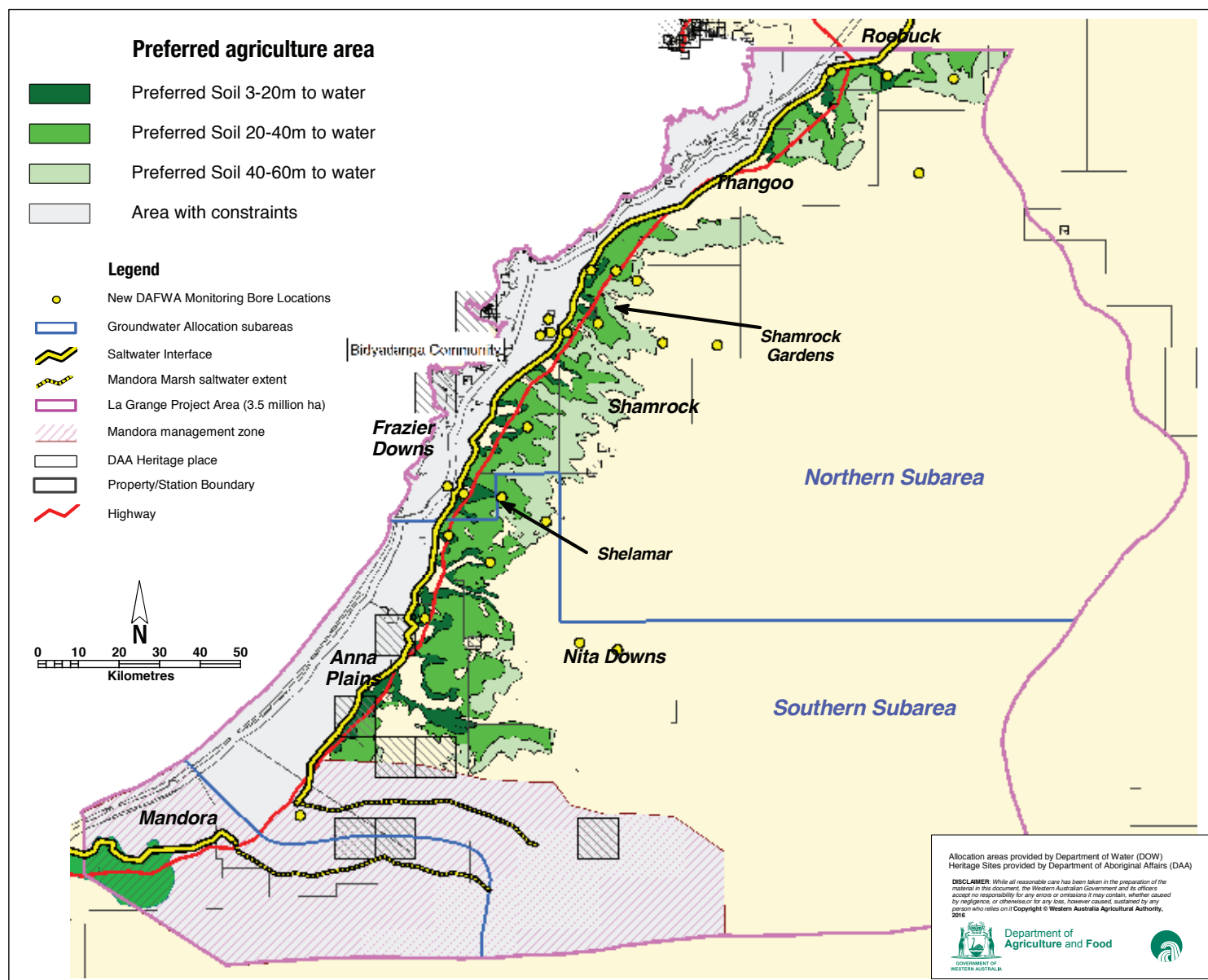
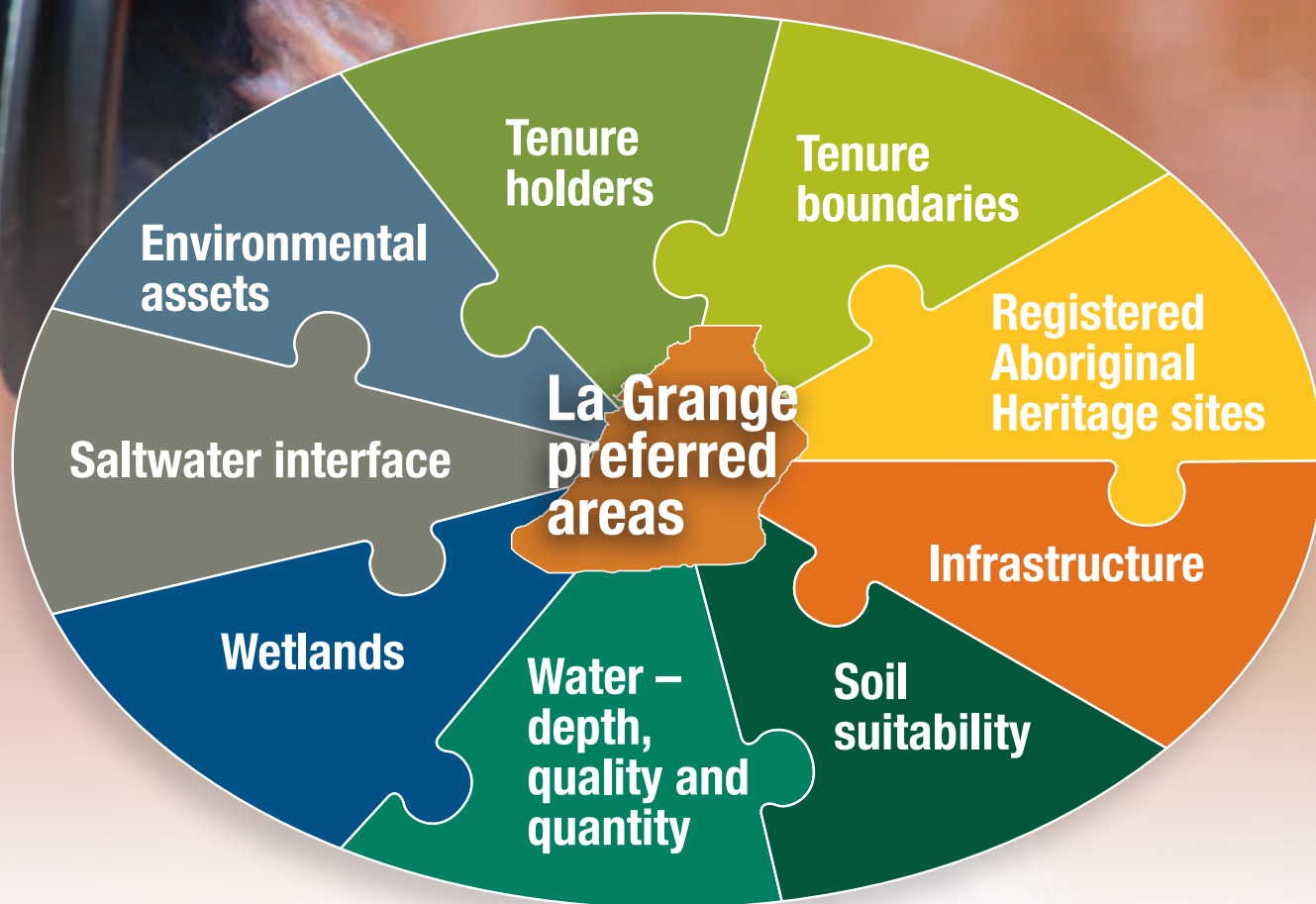


Figure 1. Preferred areas for irrigation in La Grange

## What we found

Preference rating	Colour code on map	Watertable depth	Soil quality	Area (ha)
Preferred area		Shallow (3–20m)	High	53 000
Possible area		Intermediate (20–40m)	High	180 000
Least preferred		Deeper (40–60m)	Mix of high and moderate	132 000
<b>Total potential area</b>				<b>366 000</b>





## How we found the best sites

The La Grange project recognised the unique history, landscape and cultures of the La Grange area, consulting with the Native Title Prescribed Body Corporations, their cultural advisors, land and sea managers, pastoral and horticultural businesses, agencies and other interested parties.

DAFWA used a geographic info system (GIS) to layer information and determine the areas where the opportunity for development was most promising. This process took into account a range of considerations as shown in the diagram above.

## Disclaimer

Areas shown in Figure 1 depict the full range of possible locations where agricultural development could be situated. The map does not show the scale or extent of actual developments now or in future. The scale of any development in any location will be limited by the sustainable water supply able to be licensed, and will need to demonstrate minimised local impact through the state water allocation and licensing process, and other approvals as required.

# Preferred areas for irrigation in La Grange

## FACTSHEET

### How you can use this information

The La Grange project has mapped preferred areas for irrigation at a regional scale to guide development into the most appropriate locations.

Regional-scale land and water data is available online, via the interactive groundwater map, soil and water fact sheets and technical reports. You can also contact DAFWA for location-specific data.

While mapping preferred areas is the most important first step, we recommend potential developers consider the following:

- Changes in land use and future developments require rigorous and multi-layered approval processes which are compulsory.
- Developing new irrigated agriculture opportunities needs to be based on a solid understanding of current tenure holders; legal access rights including Native Title; Aboriginal and state heritage protection legislation; environmental protection legislation and any other local, state or federal government approvals.
- Specific development proposals will require a project level assessment and involve collection of information which has not been mapped (e.g. populations of rare flora and fauna, unregistered Aboriginal Heritage sites).
- As part of the approval process, applications are circulated to stakeholders and the public.

### New tool for water users

DAFWA has developed an interactive groundwater map of the La Grange groundwater area. The tool provides valuable data about watertable depth, aquifer thickness, soil types, management zones, registered heritage sites and more. Preferred areas for irrigation are also included.

The online tool will be useful for existing and future irrigators to plan areas of irrigation development and seek approvals for diversification and water licences.

Access the interactive map at:

➔ <https://agric.wa.gov.au/n/5492>

### Find out more

The La Grange Agriculture Opportunities project is a component of the Regional Economic Development Water Opportunities project.

**Visit:** [www.agric.wa.gov.au/r4r/la-grange-agriculture-opportunities](http://www.agric.wa.gov.au/r4r/la-grange-agriculture-opportunities)

Check out DAFWA's [\*Planning agriculture development in northern Western Australia\*](#) for more information



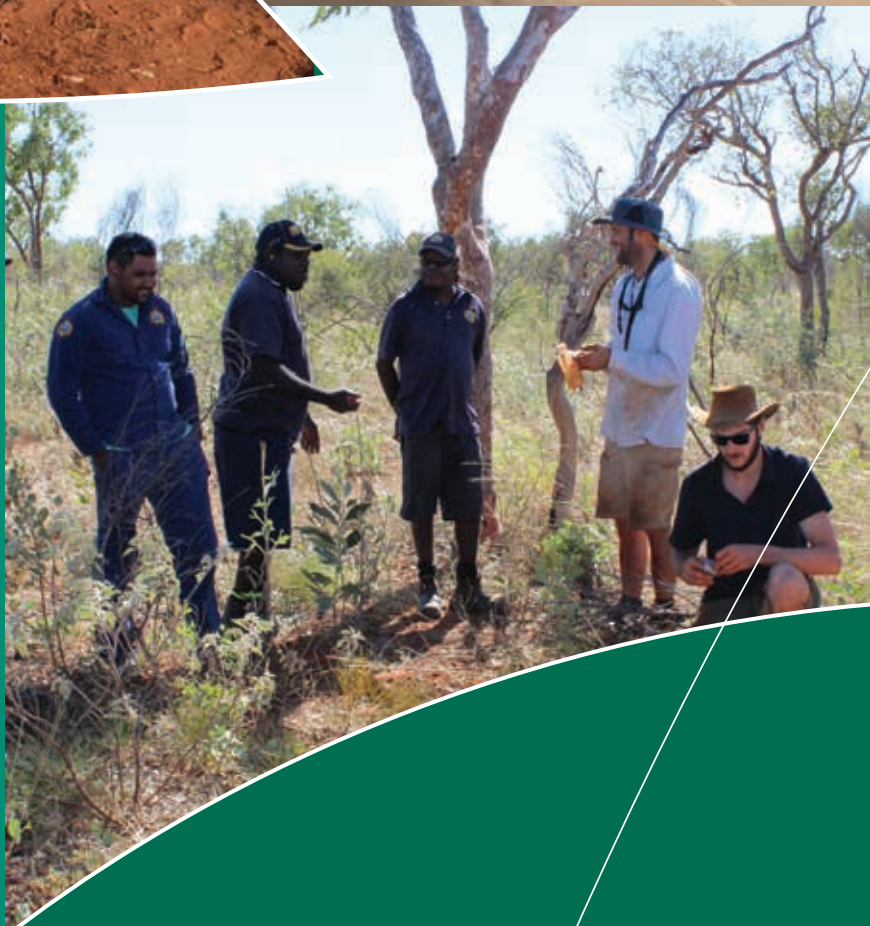




## Planning, working and learning together

Engaging and consulting with the region's landholders and stakeholders has underpinned the success of the project.

DAFWA would like to thank the pastoralists, horticulturists, the Yawuru, Karajarri and Nyangumarta Traditional Owners, government departments and consultants involved for their invaluable contribution to the project.



**This project is made possible  
by Royalties for Regions.**

### Important disclaimer

The Chief Executive Officer of the Department of Agriculture and Food and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.

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Department of  
Agriculture and Food



ROYALTIES  
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From: s22 [REDACTED]@environment.gov.au>  
 To: s47F [REDACTED]  
 [REDACTED]@dpaw.wa.gov.au>  
 s22 [REDACTED]@environment.gov.au>; s22 [REDACTED]  
 CC: s22 [REDACTED]@environment.gov.au>; s22 [REDACTED]  
 s22 [REDACTED]@environment.gov.au>; s22 [REDACTED]  
 s22 [REDACTED]@environment.gov.au>  
 Subject: FW: WA matters FW: Visit to Canberra 28-31 March [SEC=UNCLASSIFIED]  
 Date: 23.03.2017 15:35:14 (+1100)

Dear s47F [REDACTED],

We understand that you will be visiting Canberra next week. The Ecological Communities section would be interested to discuss Threatened Ecological Communities in WA with you if you still have time available.

Is there a time that might suit you- perhaps on Friday morning? We're located in the John Gorton Building.

Best regards,

s22 [REDACTED]

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**From:** s47F [REDACTED]@DPaW.wa.gov.au ]

**Sent:** Friday, 24 February 2017 8:48 PM

**Subject:** Visit to Canberra 28-31 March

Colleagues

I will be in Canberra for a meeting on 29 to 30 March. While in your town I thought it would be a great opportunity to catch up and provide advice or field questions / discuss a number of issues relevant to both our agencies. I plan to arrive in Canberra on Tuesday 28 and depart on Friday 31.

Please let me know if you are interested in catching up

Possible topics could include:

- Pilbara Research projects funded by offset \$:
  - Bilby (EPBC 2010/5513, EPBC 2011/5855, EPBC 2010/5424)
  - Northern Quoll (EPBC 2010/5567, EPBC 2010/5424, EPBC 2010/5419, EPBC 2012/6345, EPBC 2009/5167)
  - Pilbara Leaf-Nosed bat (EPBC 2011/5848, EPBC 2012/6611)
  - Pilbara Olive Python (EPBC 2010/5419)
  - Mulgara (funded through State EPA offset arrangements)
  - Fortescue Marsh cat baiting Project (2010/5706)
  - Yarraloola Northern Quoll and cat management project (EPBC 2011/5815)
  - Feral Predators Interactions in the Pilbara (EPBC 2012/6345)
- Pilbara Land management
  - Pilbara Corridors project (Biodiversity Fund project managed by Rangelands NRM)
  - Pilbara Conservation Action Plan
  - Pilbara Conservation Strategy (incl. Pilbara Environmental Offset Fund)
  - Fortescue Marsh management (funded through State EPA offset arrangements)
  - Pilbara Weed project (EPBC 2012/6345, EPBC 2011/5848, EPBC 2012/6611)
  - Chevron Gorgon Barrow Island Net Conservation Benefit project (West Pilbara Fauna molecular project, Pilbara Island Biosecurity, Passiflora Project)
- Kimberley matters
  - Dampier Peninsula Bilby Project (EPBC 2013/6984)
  - NESP Northern Hub Bilby project
  - Kimberly 'Bilby Problem'
  - Sheffield Resources & Thunderbird project proposal (EPBC 2016/7648)
  - Agricultural diversification and irrigation / central pivots
- Western Desert Traditional Owner engagement
  - Martu Ranger biodiversity data capture in NatureMap



- Birriliburu IPA engagement
- Matuwa Kurrara Kurrara IPA engagement and threatened species
- Joint Management in general
- Great Victoria Desert Traditional Owner engagement
  - Great Victoria Desert Biodiversity Trust (EPBC 2008/4270)
  - GVD 'Coalition of the Willing'
- General Science / Research / Monitoring matters
  - Western Australian Biodiversity Science Institute –WABSI
  - AusPlots, Supersite and Australian Transect Network engagement in WA
  - Threatened Ecological Communities in WA
  - 'Return to 1616' - Dirk Hartog Island Restoration
  - Vegetation map consolidation – Pilbara & Great Western Woodland focussed
  - Flora and Veg survey guidelines for EIA

And any other Parks and Wildlife WA Science and Conservation Division matter to may wish to discuss!

Cheers

s47F

s47F

Assistant Director, Science  
 Science & Conservation Division  
 Keiran McNamara Conservation Science Centre  
 Department of Parks and Wildlife  
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Please consider the environment before printing this email

The Department acknowledges the traditional owners of country throughout Western Australia and their continuing connection to land, sea and community. We pay our respects to them, their culture and to their Elders past and present.

s22

From: s22 <s22@environment.gov.au>

Sent: Thursday, 20 July 2017 9:39 AM

To: s22@environment.gov.au >; s22@environment.gov.au >; s22@environment.gov.au >; s22@environment.gov.au >; s22@environment.gov.au >; s22@environment.gov.au >; s22@environment.gov.au >; s22@environment.gov.au >; s22@environment.gov.au >; s22@environment.gov.au >

Subject: RE: pivot agriculture in the Kimberley [SEC=UNCLASSIFIED]

Thanks for the read s22 – it killed a few minutes on the plane.

Interestingly it came up in our meeting with DWER (s47F and s47F) as a bit of a sensitivity and something that the new government is interested in (and plans for the Kimberley more generally).

Cheers

s22

s22

Acting Director

Major Projects West | Environment Standards Division

Department of the Environment and Energy | PO Box 787, Canberra, ACT, 2601

Tel: s22

Part time – Monday, Tuesday, Thursday

The Department acknowledges the traditional owners of country throughout Australia and their continuing connection to land, sea and community. We pay our respects to them and their cultures and to their elders both past and present.