

EMBREY Teena

From: KLEKAR John
Sent: Monday, 1 July 2019 2:21 PM
To: EMBREY Teena
Cc: KELLAM Jason; NOVAK Dan; BLACKMAN Boyd
Subject: FW: DJI Drone Quote
Attachments: PI-3416-20190701032740.pdf; PI-3417-20190701032956.pdf

Categories: Area Admin, Business

Hi Teena, Attached are quotes for the drones we are looking at purchasing.

Regards



John Klekar

Ranger

Coastal and Islands Region, QPWS and Partnerships

Department of Environment and Science -----

P 07 4302 8555 Mob: [redacted] (6) Personal information
102 Lennox Street, Maryborough Queensland 4650
PO Box 101, Maryborough Queensland 4650

I acknowledge that Aboriginal peoples and Torres Strait Islands peoples are the traditional Owners of this country and they retain their relationship and connection to the land, sea and community.

I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.

From: [redacted] (6) Personal information @d1store.com.au>
Sent: Monday, 1 July 2019 1:43 PM
To: KLEKAR John
Cc: KELLAWAY Jim; KELLAM Jason; NOVAK Dan; D1 Enterprise; D1Store Sales
Subject: Re: DJI Drone Quote

Hi John, Dan, Jim & Jason,

Nice meeting all you at the conference up at Maryborough.

As requested please find the attached quotations for the Mavic 2 Zoom and Mavic 2 Enterprise Dual.

Feel free to get in touch if you have any issues or require any more info.

Looking forward to hearing from you.

Best Regards,

[redacted] (6) Personal information

National Operations Manager | Enterprise Solutions

M: [redacted] (6) Personal information

T : 1800 888 354

W : www.d1store.com.au



MELBOURNE - Brunswick / Mel Central | SYDNEY - World Square | PERTH - Carousel | BRISBANE - Carindale /

From: "KLEKAR John" <John.Klekar@des.qld.gov.au>
To: s) Personal in @d1store.com.au
Cc: "KELLAWAY Jim" <Jim.Kellaway@des.qld.gov.au>, "KELLAM Jason" <Jason.Kellam@des.qld.gov.au>, "NOVAK Dan" <Dan.Novak@des.qld.gov.au>
Sent: Monday, 1 July, 2019 9:33:30 AM
Subject: FW: DJI Drone Quote

Hi s) Personal in

As discussed at the Fraser Drone conference can you please forward a quote for these 2 drones –
 1 x Mavic 2 zoom drone and fly more combo
 1 x Mavic 2 enterprise dual (thermal imaging) with fly more combo

Josh, I will be sch4p4(6) Personal information so if you can please reply to all of us, then , Dan or Jason will respond to your quote.

Good meeting with you at the conference and I'm sure Dan or Jason will continue on with this.

Regards



John Klekar
Ranger
 Coastal and Islands Region, QPWS and Partnerships
 Department of Environment and Science -----

P 07 4302 8555 Mob: sch4p4(6) Personal inform
 102 Lennox Street, Maryborough Queensland 4650
 PO Box 101, Maryborough Queensland 4650

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EMBREY Teena

From: BEHRENDORFF Linda
Sent: Monday, 4 November 2019 10:20 AM
To: YETMAN Brendon
Cc: KINGSTON Barbara; KLEKAR John; DARGUSCH Marc
Subject: FW: Business case for Purchase of 2 Drones through Enhanced Fire Initiative Funding
Attachments: Fwd: enhanced fire \$\$ business rules; Business Case _ Drone procure_ Enhanced Fire.docx



Hi Brendon,

This looks good but may not meet all the current business rules. Barb has advised that a strong regional business case will be required to send up to HQ.

Regards,
Linda

Linda Behrendorff

Ranger in Charge, Natural Resource Management
Great Sandy National Park – K'gari (Fraser Island) & Cooloola
Coastal and Island Parks - Queensland Parks and Wildlife Service & Partnerships
Department of Environment and Science

P 07 4127 9128

M4(6) Personal inform

I acknowledge and pay my respect to Traditional Owners as the Custodians of the Lands and Seas on which I walk, work and live on.

From: KLEKAR John <John.Klekar@des.qld.gov.au>
Sent: Wednesday, 23 October 2019 9:54 AM
To: YETMAN Brendon
Cc: BEHRENDORFF Linda
Subject: Business case for Purchase of 2 Drones through Enhanced Fire Initiative Funding

Hi Brendon,
As discussed, business case attached for proposed purchase of 2 x drones through possible fire funding source.
Cheers



John Klekar
Ranger
Coastal and Islands Region, QPWS and Partnerships
Department of Environment and Science -----

P 07 4302 8555 Mob: p4(6) Personal inform
102 Lennox Street, Maryborough Queensland 4650
PO Box 101, Maryborough Queensland 4650

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I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.*

EMBREY Teena

From: KLEKAR John
Sent: Thursday, 6 June 2019 9:45 AM
To: NOVAK Dan
Cc: YETMAN Brendon
Subject: RE: Drone safety

Dan,
The timeframe is too tight to purchase the drone through the correct procurement - Low Value Asset > \$2K to \$5K - Purchase Order & creating an asset.

A vendor needs to be created to purchase the drone through DJI & new Po's close tomorrow.

DJI are offering immericia of extras for the same price as another supplier quote.

Looks like it will have to come out of next FYR budget.

DJI will be at the June 19th workshop, they will also demonstrate a similar drone that has heat sensing capabilities used by search & rescue / emergency services.
The downside is that it does not have waypoint & imaging capabilities of the Mavic 2 pro.
Maybe consider 2 drones?
Thanks John

From: NOVAK Dan <Dan.Novak@des.qld.gov.au>
Sent: Wednesday, 5 June 2019 3:10 PM
To: KLEKAR John
Subject: Re: Drone safety

Thanks mate

Sent from my Samsung Galaxy smartphone.

----- Original message -----

From: KLEKAR John <John.Klekar@des.qld.gov.au>
Date: 5/6/19 15:01 (GMT+10:00)
To: NOVAK Dan <Dan.Novak@des.qld.gov.au>
Subject: RE: Drone safety

Dan, There are a number of documents but non that succinctly gather everything together for us.
There are also CASA changes coming in to play. see below.
The SOP / Marine Parks document needs fine tuning.
I am waiting on the electronic version of the BAS documents and we can collate to make a robust procedure /document

Drone registration and accreditation scheme - update

28 March 2019

CASA is planning to introduce a drone registration and accreditation scheme from later this year – but it has yet to be finalised.

This follows consultation with the community from 25 January to 22 February 2019, where we sought feedback on the details.

The proposed registration and accreditation requirements apply (with certain exceptions) to:
drones more than 250 grams operated recreationally
all drones operated commercially regardless of weight.

Key parts of our proposal were:

- flyers under 16 years of age need to be supervised by someone 18 or older who is accredited
- accreditation will be an online education course to make sure you know the rules - basically, watching video and answering a quiz
- registration for recreational flyers will be less than \$20
- for commercial flyers registration is likely to be from \$100 to \$160 per drone.
- CASA has yet to determine if you can register early or if there will be any leeway around the time of registration.
- Keep up to date by subscribing to our Remotely piloted aircraft systems (Drones) mailing list. If you fly for fun, make sure you know the rules at Droneflyer.

Cheers John

From: NOVAK Dan <Dan.Novak@des.qld.gov.au>

Sent: Wednesday, 5 June 2019 2:46 PM

To: KLEKAR John

Subject: Re: Drone safety

May I have a copy of what you have so far. I keen to have a read.

Sent from my Samsung Galaxy smartphone.

----- Original message -----

From: KLEKAR John <John.Klekar@des.qld.gov.au>

Date: 5/6/19 14:42 (GMT+10:00)

To: NOVAK Dan <Dan.Novak@des.qld.gov.au>

Subject: RE: Drone safety

Collecting everything together now.

Ther will be some casa regulation changes , I'll keep you uo to speed, Cheers John

From: NOVAK Dan <Dan.Novak@des.qld.gov.au>

Sent: Wednesday, 5 June 2019 2:40 PM

To: KLEKAR John

Subject: Drone safety

Hi john, hoping for a procedure/risk assessment re drones. i think you said dnr had a good one.

Cheers Dan

Sent from my Samsung Galaxy smartphone.

EMBREY Teena

From: BELCHER Ross
Sent: Wednesday, 5 June 2019 3:34 PM
To: KLEKAR John
Cc: HAYWOOD Caitlin; YETMAN Brendon; NOVAK Dan
Subject: RE: PR Approval sought - iPad Purchase for drone.

Follow Up Flag: Follow up
Flag Status: Flagged



Thanks John, approved. Cheers, Ross

Ross Belcher

Principal Ranger (Great Sandy Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P 07 4302 8590

102 Lennox Street, Maryborough, QLD 4650

P.O. Box 101, Maryborough, QLD 4650



From: KLEKAR John <John.Klekar@des.qld.gov.au>
Sent: Wednesday, 5 June 2019 11:46 AM
To: BELCHER Ross
Cc: HAYWOOD Caitlin; YETMAN Brendon; NOVAK Dan
Subject: PR Approval sought - iPad Purchase for drone.

Hi Ross,

Approval is sought to purchase an iPad Air 2 Tablet funded by current Dingo Management Funding and through Departmental IT services

The Tablet will be dedicated to the operational use of the drone that will be purchased this FYR.

The iPad Air 2 Tablet has been recommended by staff experienced with operating drones to be more compatible for drone use.

Regards



John Klekar
Ranger

Coastal and Islands Region, QPWS and Partnerships

Department of Environment and Science -----

P 07 4302 8555 Mob: 4(6) Personal inform

102 Lennox Street, Maryborough Queensland 4650

PO Box 101, Maryborough Queensland 4650

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I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.

Privacy statement

The information being collected in this form is for the purpose of managing the financial accountability relevant to Queensland Government and is authorised under the Financial Accountability Act 2009. Your personal information may be disclosed within the Queensland Government, contracted service providers or financial institutions only as is necessary for the performance of the financial functions performed by these bodies. Your personal details will not be disclosed to any other third party or used for any other purpose without your consent, unless authorised or required to do so by law.

Next steps

1. Provide your contact details in Section 1.
2. Complete required sections:



Complete Section 2 to purchase a corporate smartphone or tablet.



Complete Section 3 to request access to email and intranet on a corporate or personal smartphone or tablet.



Complete Section 4 to purchase or modify a voice and/or data service.

3. Go to Section 5 to quickly and easily submit your request for approval to your financial delegate.

Please use departmental standard Microsoft browser or PDF software to complete this form.

Section 1. Requestor details

Name Caitlin Haywood Email address caitlin.haywood@des.qld.gov.au

Delivery address (PO box not permitted) 102 Lennox Street Maryborough QLD 4650

Phone number 07 4302 860 Department DES UserName Haywoodc
e.g. SmithR, JonesK

Person who will be using items purchased in this request

☐ The person listed in Section 1 will be using the items purchased in this request.

OR

☒ I am purchasing these items for another staff member.
Please list details of person who will be using items purchased in this request below.

Name K'gari - Dingo Drone Email address _____

Delivery address (PO box not permitted) 102 Lennox Street Maryborough QLD 4650

Phone number 07 4127 9128 Department DES UserName _____
e.g. SmithR, JonesK

Section 2. Items I want to purchase

Name and price (inc GST) of smartphone or tablet, as displayed in the [ITP Purchasing Catalogue](#)

Item 1	<u>Ipad Air 256GB</u>	Price (inc GST)	<u>\$1,199.00</u>	Cost centre for payment	<u>1002997</u>
Item 2	_____	Price (inc GST)	_____	Cost centre for payment	_____
			Total cost	<u>\$1,199.00</u>	

 Will you be disposing of a smartphone or tablet device? [Click here](#) to view important instructions.

 Will you be transferring a smartphone or tablet to another user? [Section 8](#) contains important instructions.

Section 3. Access to corporate email, calendar, contacts and intranet from your smartphone or tablet

☒ Yes, I want to access corporate email, calendar, contacts and intranet on my smartphone or tablet (recommended).
[Click here](#) for information about mobility service fees. [Click here](#) to view the Bring Your Own Device (BYOD) policy.

Type of device requiring service Ipad Air 256GB
(e.g. Apple iPhone 8)

Is this a corporate device or personal (Bring Your Own) device? Corporate device

Please supply a business case if your request is for a personal (BYOD) device.

Need assistance? We're here to help



Technology purchasing

[ITP Purchasing Catalogue](#)

19-211



ICT purchasing support

itpurchasing@itp.qld.gov.au

File E
[ITP Purchasing Catalogue](#)



ICT technical support

(07) 3008 8800

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servicedesk@itp.qld.gov.au

<http://itpservicedesk>

Section 4. Voice and data services

Complete this section to purchase a new voice or data service, or modify an existing service

☐ I have a mobile phone number/SIM card (e.g. an existing service)

What is your existing mobile number? _____

Who is your existing carrier? (eg. Telstra) _____

☐ Please transfer my existing mobile phone number and plan to my new device.

OR

☐ I want to keep my mobile phone number but wish to change my plan.

Please change my plan to: _____

☒ I do not have a mobile phone number/SIM card (e.g. no existing voice or data service)

I want to purchase the following corporate voice and/or data plan: NO SIM Card Required

Type 'No SIM card required' if no purchase is required.

Cost centre _____



The [ITP Purchasing Catalogue](#) lists available corporate voice and data plans.

Please contact the [IT Purchasing team](#) for advice and options if current plans do not meet your business requirements.

Section 5. Submitting request for approval

Terms and conditions of use for mobile devices are listed in [Section 7](#). Please ensure you read and understand this information prior to submitting this request.



Your request is almost finished. Final step is quick and easy!

Click blue button to submit this request form to your financial delegate for approval via Microsoft Outlook.



[Click here to submit request for approval](#)

Section 6. Financial approval

By approving this request I:

- confirm awareness, understanding and compliance with the Queensland Government Procurement Policy, departmental policies and procedures and the Queensland Government Code of Conduct.
- I certify that the GL account codes, cost centres, tax codes and all other information is correct.
- I approve this expenditure in accordance with my delegated Financial Authority from my departmental Instrument of Financial Delegations and Authorisations. I understand financial delegation level 1, 2 or 3 is required to purchase corporate devices.

Approver details

Name Mark Cody

Position A/Regional Director - Coastal and Islands Region

Email mark.cody@des.qld.gov.au

Financial delegation 3

Note: Financial delegation 1-3 required for device purchases and plans.

Department DES

UserName CodyMa
e.g. SmithR, JonesK

To approve this request you must be logged into the corporate network using a Windows device. If Nuance Power PDF is your default PDF viewer, please save this file, then in Windows Explorer right click *File* and select *Open with -> Adobe Acrobat Reader*.

1



Click button to approve request.

Your user account credentials which uniquely identify who you are on the corporate network will be recorded on this form.

Note: This form will become read-only. Click green button to unlock.



[Financial delegate: Click here to approve request](#)

2



Click button to email form to ITP for processing.



[Financial delegate: Click here to email form to ITP for processing](#)



Need to unlock this form?

Click green button to unlock form to modify details.
Note: Clicking green button will remove all details in the Financial approval - Identity verification section below.



[Click here to unlock form](#)

Financial approval - Identity verification

This form has been sighted and approved by an employee with the following unique user account credentials.

UserName 19-211

Email address _____

Date and time _____

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Section 7. Terms and conditions of use

I agree that by signing this agreement and accepting a departmentally purchased smartphone or tablet device, I have read and agree with the Department's Mobile and Satellite Telephones, Smartphones and Tablets Policy, and will abide by all applicable policies and procedures contained in the departmental Information Management Standards and the governing Code of Conduct.

Acknowledgement

I acknowledge that:

- a connection fee (applicable for new Intune users only) and monthly access charge will be included in the monthly ITP billing for Intune. [Click here](#) for further details on mobility service costs.
- I am solely responsible for the use of my credentials and maintaining security of my credentials. My credentials and device are strictly for my own use and I must take all reasonable precautions to prevent anyone else using them for any purpose. I am responsible for any use of my credentials and/or my device.
- unauthorised use or attempted unauthorised use of this service is prohibited and may constitute an offence under federal and state laws.
- access privileges to services may be revoked at any time without notice if there is a breach of these terms and conditions of use.
- access will be logged and may be monitored at any time.
- I will not use ITP services to provide or facilitate direct online access to any third party for any purposes.
- I have checked areas in which I work for mobile coverage prior to choosing a voice and data service. ITP has no control over mobile coverage and transmission speed provided by voice and data service providers (e.g. Telstra, Optus etc).
- I have read, understood and agree to abide by the Terms and Conditions listed in the [Bring Your Own Device \(BYOD\) policy](#) if using a personal device to access corporate email and intranet services.

Your responsibilities regarding device security and device management

- If my device is lost or stolen, or my credentials compromised, I must contact the ITP Service Desk as soon as possible.
- For security reasons I will change my password/PIN regularly as per departmental policy. I understand that device passwords/PINs on an iPhone or iPad must:
 - contain at least four (4) and less than ten (10) numeric characters.
 - not be an easily guessed sequence of numbers (e.g. 0000, 1111, 1234)
- I understand that if I enter my password/PIN incorrectly five (5) times on my work-issued device, it will automatically be wiped and will need to be restored from iTunes backup for iPads/iPhones or your Google account or other backup solution for Samsung Galaxy devices. Failed login attempts may be monitored to determine if security is being compromised.
- I understand that my work-issued smartphone or tablet device and personal BYOD device is centrally managed by ITP. If necessary ITP have the right to:
 - remotely wipe the device of data in the event that the device is reported lost or stolen.
 - monitor the device via GPS when specific events occur e.g. in the event that the device is reported lost or stolen.
 - allow or deny access to specific software applications (such as iCloud) for conformant device functionality and information management.

ITP Service Desk support

The ITP Service Desk will provide "best effort" support focused on helping customers access and use departmental services.

Section 8. Transferring a corporate smartphone or tablet to another user

If you have been assigned a corporate smartphone or tablet that has been previously used by another staff member you must:

- Complete this form (Section 3) to obtain email, calendar, contacts and intranet on your device.
- If device has an existing voice or data service (e.g. SIM card/mobile phone number) you must transfer the existing voice or data service into your name via the [QSS Self Service Centre](#). Billing for voice and data services will continue in the previous owner's name until this is completed.
- Please ensure that the previous owner signs out of their Apple ID on transferred device. Previous owner should also contact the ITP Service Desk to cancel their enrolment in Intune if they no longer require access to email and intranet from any smartphone or tablet device.

EMBREY Teena

From: HAYWOOD Caitlin
Sent: Friday, 14 June 2019 12:18 PM
To: KLEKAR John; EMBREY Teena
Subject: FW: Tablet Request
Attachments: ITP-tablet-request-form-Dingo Drone NRM K'gari.pdf; RE: PR Approval sought - iPad Purchase for drone.

Importance: High

Categories: Business



FYI

Caitlin Haywood

Administration Officer | Great Sandy Area

Coastal and Islands Region | QPWS & Partnerships

Department of Environment and Science

P 07 4302 8560 (VoIP ext 38560)

Ground Floor, 102 Lennox Street, Maryborough QLD 4650

PO Box 101, Maryborough QLD 4650

From: HAYWOOD Caitlin
Sent: Friday, 14 June 2019 12:16 PM
To: Corro QPWS gbrmci CIR
Subject: Tablet Request
Importance: High

Hi

Please see attached a tablet request form for K'gari.
The tablet will be for the operational use of the K'gari Drone.
The iPad was recommended by Marcus Toyne as it is best suited to run the programs required for the drone.
This tablet will assist in Dingo Management, Fire Management, Cultural Heritage and Projects.

PR approved email attached.

Regards

Caitlin Haywood

Administration Officer | Great Sandy Area

Coastal and Islands Region | QPWS & Partnerships

Department of Environment and Science

P 07 4302 8560 (VoIP ext 38560)

Ground Floor, 102 Lennox Street, Maryborough QLD 4650

PO Box 101, Maryborough QLD 4650

From: YETMAN Brendon
Sent: Friday, 16 August 2019 11:37 AM
To: KELLAM Jason; NOVAK Dan; KLEKAR John
Cc: JENKINSON Kay; BLACKMAN Boyd; DARGUSCH Marc
Subject: RE: Drones
Attachments: Business Case _procure outside standard Mower Gympie_20190314.docx; PI-3416.pdf

Hi All,

I have conducted a review of the forward expenses that we will be faced with out of the wongari budget for this year as in contract labour hire (BAC) for peak periods and fencing repairs and this will consume around 17% of the wongari budget. When you add in the expense for both drones and associated accessories outlined in the full quote it brings the expenditure to just under 20%. This show yes we can cover the cost of the 2 drones, but I want to see a detailed business case attached with the drone quote to justify these purchases.

I would like to remind everyone again that the purchase of these drone was given approval in principal to purchase during last financial year when there was funding available out of the wongari budget, but as you all know we have now entered into the new financial year and budgets are tighter than they have been. Yes we did obtain more in the wongari budget, but this doesn't mean we treat it as a flush account and start spending without some forward planning as we will be utilising this funding to better management wongari/visitor interactions on K'gari and this budget allocation will evaporate very quickly if we are not managing it in a responsible manner.



Therefore before we proceed with the purchase we need to:

- Compile all of the previous year's emails which identify support for the drones to be purchased
- Supply copies of all quotes
- Complete a detailed business case (see attached example) with 3 options (Option 1 do nothing, Option 2 purchase 1 drone, Option 3 purchase both drones)
- Re-seek SR and PR approval

Once this is completed, only then can the purchase proceed.

Happy to discuss further if needed.

Cheers.

Brendon Yetman

Senior Ranger

Dulingbara (Eurong), K'gari (Fraser Island) South Management Unit

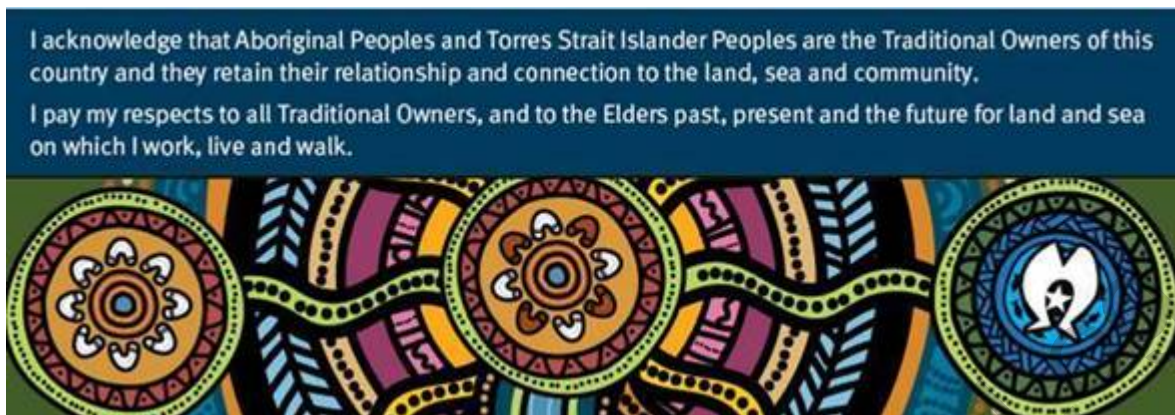
Coastal and Islands Region / QPWS and Partnerships

Department of Environment and Science

P 07 4302 8582 (Maryborough) P 07 4127 9128 (Eurong) M 04(6) Personal inform

102 Lennox Street (Cnr Alice Street), Maryborough QLD 4650

PO Box 101, Maryborough QLD 4650



From: KELLAM Jason <Jason.Kellam@des.qld.gov.au>

Sent: Thursday, 15 August 2019 11:04 AM

To: YETMAN Brendon; JENKINSON Kay

Cc: NOVAK Dan

Subject: RE: Drones

Hi Brendon,

Please refer to the attached quotation.

The quote is for two drones, but could potentially be reduced to one at this stage.

Thanks,

Jason

Jason Kellam

4p4(6) Personal information

NRM Dingo Management

Eurong, Fraser Island

Queensland Parks and Wildlife Service

Department of Environment and Science

P 13 QGOV (13 7468)

PMB 10, MS 2173, Rainbow Beach, QLD, 4581

From: YETMAN Brendon <Brendon.Yetman@des.qld.gov.au>

Sent: Thursday, 15 August 2019 9:50 AM

To: KELLAM Jason; JENKINSON Kay

Cc: NOVAK Dan

Subject: Drones

Importance: High

Hi Jason and Kay,

I am reviewing the yearly budget outlays for the wongari budget due to the interest in purchasing drones. We all need to understand that the approval to purchase these drone was last financial year when we were flush with funds. As we are now in the new financial year, any pre-approved purchases from last year are to be placed on hold until further notice.

So what I need is a copy of the quotes or estimates for the current drones you are wanting to purchase please? Once I have completed a budget breakdown for the tears expenses I will inform you if we are able to make this purchase or not.

If you have any concerns please don't hesitate to contact me.

Cheers.

Brendon Yetman

Senior Ranger

Dulingbara (Eurong), K'gari (Fraser Island) South Management Unit

Coastal and Islands Region / QPWS and Partnerships

Department of Environment and Science



Queensland
Government

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102 Lennox Street (Cnr Alice Street), Maryborough QLD 4650
PO Box 101, Maryborough QLD 4650

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Business Case for the procurement of 2 drones with different capabilities for CIR / GSA.

August 2019

Version 1.0

Owner:	John Klekar
Contact details:	Telephone: 4305 8555 Email: john.klekar@des.qld.gov.au
Program name:	K'gari, Wongari Project, Minor P&E
Division/Unit:	QPWS CIR GSA Region
Document status:	Initial Draft

Revision history

Revision date	Version No.	Author	Description of changes
20/08/2019	1.0	John Klekar	Initial draft

Endorsement (must be completed)

Delegates	Name	Signature	Date
A/Principle Ranger	Marc Dargusch		
Senior Ranger	Brendon Yetman		
NRM Ranger	Dan Novak		

Approval

Delegate	Name	Signature	Date
A/Principal Ranger	Brendon Yetman		

Business case background

Approval in principle to purchase a drone in the 2018/19 fyr out of Wongari management funds was previously given by PR Ross Belcher. The purchase did not eventuate due to tight financial timeframes. The predicted forward expenses of the Wongari management budget for the current fyr is estimated to be just under 20% of allocated funding and includes BAC labour hire for peak periods and fencing repairs as well as the purchase of 2 drones.

This Business Case has been developed to justify the procurement of 2 drones. Each drone has different operational capabilities that enable a suite of operational capabilities not currently available to staff. The purchase of the drones will enhance natural resource management and make more efficient use of staff resources.

Last saved	Filename	Page
30-January-2020 10:06 AM	Email_21082019_Attachment_Business Case_Drone procureDrone procurement	2 of 8

1 Executive summary

Various drone model comparisons were considered through the procurement process. The DJI Mavic series of drones were identified as the best product that met QPWS requirements. The 2 drone models proposed to be purchased are the DJI Mavic 2 Zoom & the Mavic 2 enterprise dual. Each drone shares similar high performance flying characteristics but also individual capabilities as per -

- The DJI Mavic 2 Zoom has high resolution imagery & 3D mapping capability.
- The DJI Mavic 2 enterprise dual has thermal imaging capability that can be set for specific temperature ranges.

The capabilities are not interchangeable on the drone platform and purchase of the 2 drones with these features would match QPWS needs.

The drones would be primarily used for NRM purposes such as -

- Search & locating Wongari within enclosed fenced areas.
- Search & mapping Bitou bush and other weed species locations.
- Myrtle rust mapping - particularly in high canopy areas.

Additional uses would include fire operations, emergency management, infrastructure planning and development.

It is planned that it will become a requirement for drone operation to be restricted to staff that have acquired the CASA approved Remote Pilots Licence.

Recommend Option 3 - Purchase of 2 drones - The DJI Mavic 2 Zoom & the DJI Mavic 2 enterprise dual with accessory kits. Due to -

DJI Mavic 2 drone models are at the forefront of drone technology, performance and reliability. 'Fly to home' safety features are standard in the event of low battery power or loss of signal. The 2 models offer highly desirable capabilities that will enable rangers to perform tasks more efficiently and safely. DJI also provides excellent customer support and competitive costs.

2 Project definition

Purchase of DJI Mavic 2 Zoom & the DJI Mavic 2 enterprise dual drones.

Alignment to agency/program strategies and objectives

Goals and objectives	Government/agency/program strategy
Fraser Island Dingo Conservation and Risk Management Strategy 2013	<p><i>Wongari management strategy – Reduce the interaction between people and Wongari –</i></p> <p><i>Drones will assist with Wongari management enabling locating Wongari that have entered into fenced off township areas more readily than current practices.</i></p> <p><i>In 2018 fyr over \$45k was spent on locating and removal of Wongari from within the KBRV township fenced area. Over 50% of this was labour costs much of which was to locate the animals.</i></p>

2.1 Objectives

Obtain drones that have optimal capabilities that suit QPWS requirements for enhanced natural resource and visitor management capabilities.

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2.2 Scope

Purchase of drones with reliable high performance track records, high resolution imagery and thermal imaging capabilities.

2.2.1 Included

The scope of the procurement includes drone capabilities with:

- A proven flying history of high performance, stability and reliability.
- Standard safety features to include 'fly to home' in the event of low battery power or intermittent loss of signal.
- High resolution imagery capabilities.
- Thermal imaging capabilities with ability to set range of temperature.
- Set GPS coordinate route features.
- Additional accessories that will increase fly time and enable optimum drone operation.

2.3 Related initiatives

The initiatives shown in the table below have a bearing, or are in some way dependant, on this project:

Related program/project	Nature of the relationship
Estate Fire Management	Mapping post fire extent & observing fire behaviour of planned burns & wildfires
Emergency management-	Assist with search & rescue operations.
Traditional Owner Cultural Heritage Data capture	Aerial Surveying and mapping of CH sites and areas.
Capital Works project planning and development.	Enable development of high quality project proposals that include enhanced detailed visual presentation.
Road and firebreak infrastructure planning.	Enable flyovers of proposed routes to assess viability.
Infrastructure inspections	Undertake inspections of building roofs and other infrastructure in difficult to access areas.
Compliance	Assist with information gathering

2.4 Assumptions

Future training budget will enable a restricted number of staff to acquire the Remote Pilot Licence to operate the drone.

2.5 Constraints

Purchase of only one drone will reduce the operational capabilities that both drones would enable.

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3 Options

3.1 Identify requirements and related safety issues

Needs/tasks	Safety Issues	Result of risk assessment
Locating Wongari that entered into a fenced off township or area	Utilising drones will reduce the need for extensive searches on foot in difficult to access areas.	Low
General drone operation	Operating the drones in populous areas or within aircraft fly areas. Drone operation will be in accordance with CASA drone operation regulations. Drone operators will hold a remote pilot licence.	Low

3.2 Identification of options

3.2.1 Option 1 – Do nothing

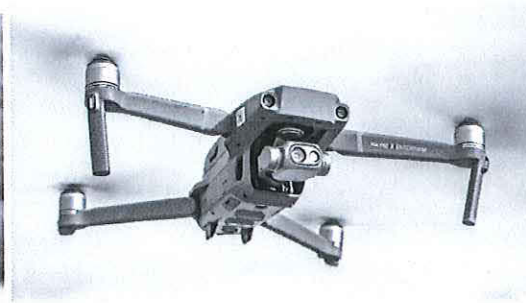
The current method of searching for Wongari or Bitou bush in thick brush on uneven ground is resource intensive and adds an increased safety risk to staff. Continuation of the current way of undertaking these searches decreases the amount of funding that could be utilised on more efficient programs.

Option 2 – Purchase only one drone – Mavic 2 Zoom

The Mavic 2 drone with the high resolution imagery would enable many of the tasks listed above to be undertaken with a degree of efficiency. Although without thermal imagery capability effectiveness of undertaking search and locate operations involving Wongari or missing persons would be significantly diminished in thick vegetation.

3.2.2 Option 3 – Purchase of Both drones Mavic 2 Zoom and Mavic 2 Dual Enterprise

The Mavic 2 dual enterprise drone with the thermal imaging capability would significantly increase the effectiveness of undertaking search and locate operations involving Wongari or missing persons. Utilising only the drone with the high resolution imagery would be of only marginal benefit in these situations due to obscured vision in thick brush. The thermal imaging capability of the Mavic 2 Dual Enterprise drone working in tandem with the High resolution capability of the Mavic 2 Zoom would provide optimal effectiveness in search situation.



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Business Case for the procurement of plant & equipment outside a standardised model

3.3 Comparison of options

Tasks/ requirements	Drone Operations Mapping potential road or firebreak routes Providing high level imagery for project proposals		
Conditions / requirements	<ul style="list-style-type: none"> High resolution imagery Thermal imagery Flying performance and fly time. 		
Analysis	Do Nothing	Purchase 1 drone Mavic 2 Zoom	Purchase both drones - Mavic 2 Dual Enterprise - Thermal Imagery
Missing Persons or Wongari Searches	Continue to undertake resource extensive and risky on ground searches.	Lacks thermal imagery capability. Reduced effectiveness in thick brush or canopy. Limited benefit.	Can work in tandem with the Mavic 2 zoom. Thermal imagery and visual imagery can significantly decrease the need for extensive and costly on ground searches.
Bitou bush search and mapping	As above – Not cost effective & with inherent safety risks.	Will provide good high resolution imagery for identifying Bitou during flowering period. Very effective.	Thermal imagery of no benefit. Visual resolution not as good as Mavic 2 zoom but still powerful enough to identify Bitou flowers. Operating both drones in different areas allows more ground to be covered. Highly effective.
Mapping fire extent & Observing fire behaviour - situation awareness	Continue use of hiring aircraft at expensive rates.	High resolution imagery can provide above canopy observance of fire behaviour & post fire mapping.	Thermal imaging untested for post fire mapping extent but would be useful for identifying hot spots on fire edge in remote locations.
Infrastructure inspections - Building roofs and other difficult to access areas.	Not cost effective & with inherent safety risks.	Effective imagery. Reduces safety risk.	Effective imagery. Reduces safety risk.

3.4 Recommended option

Recommend Option 3 - Purchase both drones

Both drones provide a reliable and stable operating platform. The Mavic 2 zoom has far better image resolution but lacks thermal imaging capability that would be useful for search operations. The labour cost for undertaking Wongari searches in one year would many times exceed the purchase price of both drones.

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4 Risks

The following significant risks have been identified to date:

Risk	Risk description (event and consequence)	Pre-treatment level of risk	Treatment option and description	Residual level of risk
Inappropriate use	Untrained operators - Collisions with aircraft	Moderate	Drone operations to be undertaken in accordance with CASA regulations. Drone operators to acquire Remote Pilots Licence as funds allow.	Low

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4.1 Funding source

The funding source for the recommended option and ongoing costs are indicated below:

- Funding for the purchase of drones will be against cost Centre 1002997

Funding source for purchase costs	☒	Core operating funds
	☐	Capital funds
	☐	Allocation from external source Specify.....
	☐	Seeking new funds
Funding source for ongoing costs	☒	Core operating funds
	☐	Capital funds
	☐	Allocation from external source Specify.....
	☐	Seeking new funds

5 Timescale

Funding approved 2019/20 financial year

Procurement – Sept / 2019

Delivery- Oct /2019

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Pro-forma Invoice



Invoice Number:

PI-341 ☐

Salesman: sch4p4(6) Personal informat

Invoice Date: 2019-07-01 13:14:41

Quotation Number: 3416

D1 Store Pty Ltd (ABN 49 618 215 044)
421 Victoria Street, Brunswick, VIC 3056
Tel: 1800 888 354
info@d1store.com.au

Bill To

Name: Jason Kellam
Company: Department of Environment and Science
Email: jason.kellam@des.qld.gov.au
Contact Number: sch4p4(6) Personal informat
Address: 102 LENNOX STREET MARYBOROUGH
QLD 4650

Ship To

To: Jason Kellam
Company: Department of Environment and Science
Contact Number: 0475 837 435
Address: 102 LENNOX STREET MARYBOROUGH
QLD 4650

Item	Price	Qty	Total
MAVIC2ZSC Mavic 2 Zoom with Smart Controller	sch4p4(7)(1)(c) Business/commercial/professional/financial affairs		
MAVIC2P1 Mavic 2 Fly More Kit			
CRFMAVIC2 DJI Care Refresh (Mavic 2)			
MSD128GSD SanDisk Ultra MicroSDXC 128GB Class 10 Memory Card			
MAVIC2EPDUAL Mavic 2 Enterprise Dual			
ESMAVIC2DUAL Enterprise Shield Mavic 2 Dual			
MAVIC2P22 Mavic 2 Protector Case			
PGY-MRC-005 Mavic Pad Holder			
Sub-Total			\$9,460.00
Shipping Fees (freefreight)			\$0.00
Discount Code (PROFORMA-DISCOUNT)			business/commercial/profess
GST			\$735.27
Grand Total (Incl GST)			\$8,088.00

Please remit funds to:

Bank Name: National Australia Bank

Account Name : D1 STORE Pty Ltd
BSB: 083-237
Account No.: 92-455-8944

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure if the goods fail to be of acceptable quality. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure. All products carry return to base warranty unless otherwise stated. No advance replacement is available. Shipping / Insurance fees are paid by the customer when sending goods to D1 Store. D1 Store will pay shipping fees when sending back to the customer.

Please refer to our shipping and refund policy [here](#).

*If purchased DJI Care Refresh, please go to http://store.dji.com/dji_care_infos/active and complete the process within 48 hours after the main product has been activated.

PDF generated on 14/08/2019 02:30:30am

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ABN 37 093 114 286

JB HI FI HOME
2118 IPSWICH RD
OXLEY QLD 4075
PHONE: (07) 3278 0153
FAX: (07) 3379 3531

SALES TAX INVOICE | QUOTE:

Date: 05/06/19

Name: John Klekar

Contact:

Address:

Phone No: sch4p4(6) Personal information

Email: John.Klekar@des.qld.gov.au

Quantity	SKU	Description	Amount (inc. GST)
1	900900	DJI – Mavic 2 Pro	
1	624441	DJI Mavic 2 FLYMORE KIT	business/commercial/profession

TOTAL INCLUDING GST

\$ 3,044

Salesperson ID: #48643 Personal in

IF CHOOSING TO PAY VIA DIRECT DEPOSIT:

Bank Account Details:

JB HI FI GROUP, Westpac Bank, Melbourne

BSB Number: 033 095

Account Number: 236 745

Reference number: 172 (surname or company name)

EMBREY Teena

From: KLEKAR John
Sent: Wednesday, 21 August 2019 1:02 PM
To: YETMAN Brendon
Cc: NOVAK Dan; KELLAM Jason
Subject: Drone procurement
Attachments: Business Case _ Drone procure.docx; RE: Drone.; JB Hi Fi Drone quote.doc; DJI Mavic quote.pdf; KBRV Dingo Management 2018.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Brendon ,
For review / endorsement to PR.
Attached is the business case recommending the purchase of 2 drones.
The business case identifies the benefits of each drone & provides analysis why we would purchase 2 drones.
Cheers John



John Klekar
Ranger
Coastal and Islands Region, QPWS and Partnerships
Department of Environment and Science

P 07 4302 8555 Mob: (4) (6) Personal inform
102 Lennox Street, Maryborough Queensland 4650
PO Box 101, Maryborough Queensland 4650

*I acknowledge that Aboriginal peoples and Torres Strait Islands peoples are the traditional Owners of this country and they retain their relationship and connection to the land ,sea and community.
I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work , live and walk.*

Business Case for the procurement of 2 drones with individual capabilities for CIR / GSA.

Oct 2019

Version 1.0

Owner:	John Klekar
Contact details:	Telephone: 4305 8555 Email: john.klekar@des.qld.gov.au
Program name:	K'gari, Enhanced Fire Management Initiative Project, Minor P&E
Division/Unit:	QPWS CIR GSA Region
Document status:	Initial Draft

Revision history

Revision date	Version No.	Author	Description of changes
20/08/2019	1.0	John Klekar	Initial draft

Endorsement (must be completed)

Delegates	Name	Signature	Date
NRM Ranger	Linda Behrendorff		
Senior Ranger	Brendon Yetman		

Approval

Delegate	Name	Signature	Date
A/Principal Ranger	Marc Dargusch		

Business case background

This Business Case has been developed to justify the procurement of 2 drones. Each drone has different operational capabilities with complimentary operational capabilities not currently available to staff. The purchase of the drones will enhance natural resource management operations with an emphasis on Fire management.

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1 Executive summary

Various drone model comparisons were considered through the procurement process. The DJI Mavic series of drones were identified as the best product that met QPWS requirements. The 2 drone models proposed to be purchased are the DJI Mavic 2 Zoom & the Mavic 2 enterprise dual. Each drone shares similar high performance flying characteristics but also individual capabilities as per -

- The DJI Mavic 2 Zoom has high resolution imagery & 3D mapping capability.
- The DJI Mavic 2 enterprise dual has thermal imaging capability that can be set for specific temperature ranges.

The capabilities are not interchangeable on the drone platform and purchase of the 2 drones with these features would match QPWS needs.

The drones would be primarily used for Fire Management Operations such as -

- Early detection of fire size & location in inaccessible areas.
- Detection of fire spot overs particularly in heavily canopied locations.
- Detection of fire hot spots through infra-red sensing capabilities.
- Providing real time fire behaviour characteristics information.
- Cost effective mapping of fire extent and percentage of vegetation burnt.

Additional uses would include emergency management, infrastructure planning and development & pest weed mapping.

It is planned that it will become a requirement for drone operation to be restricted to staff that have acquired the CASA approved Remote Pilots Licence.

Recommend Option 3 - Purchase of 2 drones - The DJI Mavic 2 Zoom & the DJI Mavic 2 enterprise dual with accessory kits for combined cost of \$6 700

Rationale

DJI Mavic 2 drone models are at the forefront of drone technology, performance and reliability. 'Fly to home' safety features are standard in the event of low battery power or loss of signal. DJI also provides excellent customer support and competitive costs. The two proposed models offer highly desirable capabilities that will enable rangers to conduct fire operation activities efficiently and safely.

2 Project definition

Purchase of DJI Mavic 2 Zoom & the DJI Mavic 2 enterprise dual drones.

Alignment to agency/program strategies and objectives

Goals and objectives	Government/agency/program strategy
Kgari – Fire Management. The desired level of service to be improved from Very High to Exceptional. The purchase of the two drones would enable on ground management capabilities not currently available to achieve this outcome.	<i>Values Based Management Framework for Great Sandy National Park – K'gari (Fraser Island) Section Assessment and Monitoring Strategy (2016- 2021)</i>

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2.1 Objectives

Purchase of drones with reliable high performance track records, high resolution imagery and thermal imaging capabilities.

Procure drones that have optimal capabilities to suit QPWS requirements for enhanced natural resource management with a focus on improving fire management operations and post burn data capture.

2.1.1 Included

The scope of the procurement includes drone capabilities with:

- A proven flying history of high performance, stability and reliability.
- Standard safety features to include 'fly to home' in the event of low battery power or intermittent loss of signal.
- High resolution imagery capabilities.
- Thermal imaging capabilities with ability to set range of temperature.
- Set GPS coordinate route features.
- Additional accessories that will increase fly time to enable optimum data capture.

2.2 Related initiatives

The initiatives shown in the table below have a bearing, or are in some way dependant, on this project:

Related program/project	Nature of the relationship
Estate Fire Management	Mapping post fire extent & observing fire behaviour of planned burns & wildfires
Emergency management-	Assist with search & rescue operations.
Traditional Owner Cultural Heritage Data capture	Aerial Surveying and mapping of CH sites and areas.
Capital Works project planning and development.	Enable development of high quality project proposals that include enhanced detailed visual presentation.
Road and firebreak infrastructure planning.	Enable flyovers of proposed routes to assess viability.
Infrastructure inspections	Undertake inspections of building roofs and other infrastructure in difficult to access areas.
Compliance	Assist with information gathering

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2.3 Assumptions

Future training budget will enable a restricted number of staff to acquire the Remote Pilot Licence to operate the drone.

2.4 Constraints

Purchase of only one drone will reduce the operational combined capabilities that both drones would enable.

3 Options

3.1 Identify requirements and related safety issues

Needs/tasks	Safety Issues	Result of risk assessment
General drone operation	Operating the drones in populous areas or within aircraft fly areas. Drone operation will be in accordance with CASA drone operation regulations. Drone operators will hold a remote pilot licence.	Low

3.2 Identification of options

3.2.1 Option 1 – Do nothing

Proceed with the current method of obtaining overhead real time visual observation of wildfire behaviour and extent utilising costly aerial flyovers with manned aircraft subject to the availability of funding & aircraft.

Option 2 – Purchase only one drone – Mavic 2 Zoom

The Mavic 2 drone with the high resolution imagery would enable many of the tasks listed above to be undertaken with a degree of efficiency & would be the purchase choice if funding is limited.

3.2.2 Option 3 – Purchase of Both drones Mavic 2 Zoom and Mavic 2 Dual Enterprise.

The thermal image capability of the Mavic 2Dual Enterprise drone offers great potential to identify hot spots that could potentially enhance fire containment and this capability would be lost with the purchase of only one drone.

The thermal imaging capability of the Mavic 2 Dual Enterprise drone working in tandem with the High resolution capability of the Mavic 2 Zoom would provide optimal effectiveness in fire management operations.



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3.3 Comparison of options

Tasks/ requirements	Drone Operations – Fire Management Providing real time overhead observation of fire behaviour and extent. Identifying fire hot spots on the edge of fire containment lines Providing overhead high level imagery for post burn fire mapping.		
Conditions / requirements	<ul style="list-style-type: none"> High resolution imagery Thermal imagery Flying performance and fly time. 		
Analysis	Do Nothing	Purchase 1 drone Mavic 2 Zoom	Purchase both drones - Mavic 2 Dual Enterprise - Thermal Imagery
Mapping fire extent & Observing fire behaviour - situation awareness	Continue use of hiring aircraft at expensive rates subject to limited funding.	High resolution imagery can provide above canopy observance of fire behaviour & post fire mapping.	Thermal imaging untested for post fire mapping extent but has potential through experimentation with temperature range setting variances. Enhanced fire containment through thermal imaging of hot spots on fire edge particularly in difficult to access locations.
Missing Persons or Wongari Searches	Continue to undertake resource extensive and risky on ground searches.	Lacks thermal imagery capability. Reduced effectiveness in thick brush or canopy. Limited benefit.	Can work in tandem with the Mavic 2 zoom. Thermal imagery and visual imagery can significantly decrease the need for extensive and costly on ground searches.
Bitou bush search and mapping	As above – Not cost effective & with inherent safety risks.	Will provide good high resolution imagery for identifying Bitou during flowering period. Very effective.	Thermal imagery of no benefit. Visual resolution not as good as Mavic 2 zoom but still powerful enough to identify Bitou flowers. Operating both drones in different areas allows more ground to be covered. Highly effective.
Infrastructure inspections - Building roofs and other difficult to access areas.	Not cost effective & with inherent safety risks.	Effective imagery. Reduces safety risk.	Effective imagery. Reduces safety risk.

3.4 Recommended option

Recommend Option 3 - Purchase both drones

Both drones provide a reliable and stable operating platform. The Mavic 2 zoom has far better image resolution but lacks thermal imaging capability of the Mavic 2 Dual Enterprise drone.

- Procurement of both drones would deliver complimentary benefits that will enhance wildfire suppression operations and post fire mapping accuracy.

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4 Risks

The following significant risks have been identified to date:

Risk	Risk description (event and consequence)	Pre-treatment level of risk	Treatment option and description	Residual level of risk
Inappropriate use	Untrained operators - Collisions with aircraft	Moderate	Drone operations to be undertaken in accordance with CASA regulations. Drone operators to acquire Remote Pilots Licence as funds allow.	Low

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[Sec: UNCLASSIFIED-GOVERNMENT-INTERNAL-USE-ONLY]

4.1 Funding source

The funding source for the recommended option and ongoing costs are indicated below:

- The proposed purchase is currently seeking funding through enhanced fire management imitative funding.
- Funding for drone operation training to be provided to 6 staff will be sought through the same avenue. If unsuccessful funding for training will be obtained through regional training fund allocation.

Funding source for purchase costs	☐	Core operating funds
	☐	Capital funds
	☐	Allocation from external source Specify.....
	☒	Seeking new funds
Funding source for ongoing costs	☒	Core operating funds
	☐	Capital funds
	☐	Allocation from external source Specify.....
	☐	Seeking new funds

Procurement costs

MAVIC 2 EPDUAL Mavic 2 Enterprise Dual	\$4 400
Mavic 2 Zoom	\$2 300
Total Price	\$6 700
Proposed Training Costs for Remote Pilots Licence	\$1500 / per person

5 Timescale

Funding approved 2019/20 financial year
Procurement – DEC / 2019
Delivery- DEC /2019

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[Sec: UNCLASSIFIED-GOVERNMENT-INTERNAL-USE-ONLY]

EMBREY Teena

From: KLEKAR John
Sent: Wednesday, 23 October 2019 9:54 AM
To: YETMAN Brendon
Cc: BEHRENDORFF Linda
Subject: Business case for Purchase of 2 Drones through Enhanced Fire Initiative Funding
Attachments: Business Case _ Drone procure_ Enhanced Fire.docx

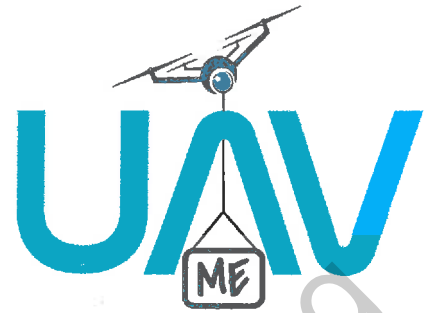
Hi Brendon,
As discussed, business case attached for proposed purchase of 2 x drones through possible fire funding source.
Cheers



John Klekar
Ranger
Coastal and Islands Region, QPWS and Partnerships
Department of Environment and Science -----

P 07 4302 8555 Mob: 4(6) Personal inform
102 Lennox Street, Maryborough Queensland 4650
PO Box 101, Maryborough Queensland 4650

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I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work , live and walk.*



ABN: 29 618 353 923

ACN: 618 353 923

Paid

Date Due: 07/11/2018

Date placed: 07/11/2018

Date invoiced: 07/11/2018

Australia

QTY	Name	Unit Price	Discounts	Tax	Subtotal
1	Phantom 4 Pro V2.0				
1	Phantom 4 Series - Intelligent Flight Battery (5870mAh, High Capacity)				

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

Payment Options

Direct Bank Deposit or Internet Transfer

Send To Uav Me

Westpac

BSB: 034139, Account Number: 234229

Money Order or Cheque

Send To

PLEASE leave your order number or last name as a payment reference. Once you have deposited the full amount, please email your order number to confirm your payment.

Fixed Rate By invoice \$15.00

Total:

Product Subtotal:

Discount:

GST included:

Grand Total: \$2,414.00

Amount Paid: \$2,414.00

Balance Due: \$0.00

Order payment history

Date	Payment Method	Amount
07/11/2018	Contact Store for Credit Card Payment (07) 3208 0167	\$2,414.00

EMBREY Teena

From: KLEKAR John
Sent: Tuesday, 28 May 2019 1:46 PM
To: YETMAN Brendon; NOVAK Dan
Cc: BELCHER Ross; BLACKMAN Boyd; HARVEY Peter
Subject: RE: Drone.
Attachments: DRONE.PDF

Hi, PR supports received. Ross requests to proceed with the purchase of a drone and the drone workshop attendance.

Start fielding Drone types / models / requirements / capabilities.

I am sure that we will get a lot out of the workshop.

I will follow up with WHS / regulatory information.

Regards



John Klekar
Ranger

Coastal and Islands Region, QPWS and Partnerships
Department of Environment and Science

P 07 4302 8555 Mob: 4(6) Personal inform
102 Lennox Street, Maryborough Queensland 4650
PO Box 101, Maryborough Queensland 4650

*I acknowledge that Aboriginal peoples and Torres Strait Islands peoples are the traditional Owners of this country and they retain their relationship and connection to the land, sea and community.
I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.*

From: YETMAN Brendon <Brendon.Yetman@des.qld.gov.au>
Sent: Tuesday, 28 May 2019 12:39 PM
To: KLEKAR John
Subject: RE: Drone.

Hi John,

Looks good to me. If you can sell it to Ross from a Dingo management angle as well as other projects I will support the purchase.

Cheers.

Brendon Yetman

Senior Ranger

Dulingbara (Eurong), K'gari (Fraser Island) South Management Unit

Coastal and Islands Region / QPWS and Partnerships

Department of Environment and Science

P 07 4302 8582 (Maryborough) P 07 4127 9128 (Eurong) M 4(6) Personal inform
102 Lennox Street (Cnr Alice Street), Maryborough QLD 4650
PO Box 101, Maryborough QLD 4650

I acknowledge that Aboriginal Peoples and Torres Strait Islander Peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community.
I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.



From: KLEKAR John <John.Klekar@des.qld.gov.au>

Sent: Tuesday, 28 May 2019 12:00 PM

To: YETMAN Brendon

Subject: Drone.

Hi Brendon, if there is any extra money floating around I seriously reckon we could do with a drone same as the one DNR purchased which is an upgrade of the Rainbow One.

It would help with dingos, project briefs, CH, weeds fire etc.

Right now it would be useful for Poyungan and Tukkee project briefs.

Cheers John

EMBREY Teena

From: Brendan Guy <Brendan.Guy@frasercoast.qld.gov.au>
Sent: Wednesday, 29 May 2019 9:17 AM
To: DL-LDMG-CCC; DL-LDMG-Members; DL-LDMG-Advisors
Cc: Jarrod Delahunty; Angela Everist; vicki.callanan@northburnett.qld.gov.au; 'Peter Mann'
Subject: FCRC Drones Showcase
Attachments: FC Drones 2019.pdf

Hi Guys

The Fraser Coast Regional Council is holding the regions first Drones and Innovation Showcase at the Brolga Theatre, Maryborough – 19th June 2019.

The event will host many high profile speakers from the drone and innovation space and includes a specific presentation on the use of drones in emergency services, plus an emergency service/rescue display on the Mary River using drones.

As part of the presentations, is a presentation on;

- Drones in emergency services - The Ripper Group are the operators of Westpac Little Ripper Lifesaver, which deploys unmanned aircraft in both humanitarian and search and rescue response, (*The Westpac Little Ripper Lifesaver team successfully conducted the world's first drone ocean rescue in January 2018 in partnership with Surf Lifesaving*).
- The innovative use of drones within business, STEM education, certification and job opportunities.

Speakers in focus, (<https://www.fcdrones.com.au/speakers>):

- [4p4(6) Personal information] The Ripper Group International, official partner of the Westpac Rescue.
- [sch4p4(6) Personal information] the 'dame of drones' and current world leader in drone research is an advocate for gender diversity in STEM education and working on global projects where emerging technologies meet education and environmental needs.
- [sch4p4(6) Personal information] head of drone operations for the Australian Army.

To register or for more information, go to: <https://www.fcdrones.com.au/>

Included within the showcase will be a major drones and innovation display with an opportunity for hands on drone simulation experience, a drone rescue scenario on the Mary River and the opportunity to fly 'mini drones' - Guests can register for either full day or half day with lunch and refreshments supplied.

Could I ask you to pass on to colleagues you feel may be interested in attending.

Cheers

Brendan Guy

Disaster Planning Coordinator

Fraser Coast Regional Council

T 4197 4330 M [4p4(6) Personal information] E Brendan.guy@frasercoast.qld.gov

<http://disaster.frasercoast.qld.gov.au/>



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RTI Act 2009

Activity Description	Risk Description	Risk Event What can happen? How can it happen? When can it happen?	Current Risk Control/s	Number of staff required to manage safely	Likelihood	Consequence	Risk Level	Risk Score	Revised Risk Control/s Elimination, Substitution, Isolation, Redesign, Administrative Controls and Personal Protective Equipment (PPE).	Revised Likelihood	Revised Consequence	Revised Risk Level	Revised Risk Score	Responsible Person	Review Date
Operation of Remote Piloted Aircraft (RPA)	<ul style="list-style-type: none"> Use of RPA for compliance operations Use of RPA for management purposes Launch, manoeuvre and retrieve RPA on Shore Launch, manoeuvre and retrieve RPA from vessels 	<ul style="list-style-type: none"> Operator error Loss of power due to flat batteries on the RPA, the controller or the tablet Injury to personal during take-off and landing due to collision 	<ul style="list-style-type: none"> No staff are to operate RPA unless they have completed RPA training as per the SOP Use of a very small remotely piloted aircraft (100g < 2kg) for management and compliance operations in Moreton Bay Marine Park. Only approved persons as per the SOP are to operate the RPA Pre-flight briefing must be carried out A system of pre-flight checks and log book has been developed as part of the SOP to ensure that the required checks are carried out and recorded Operation from Shore Pilot must follow the CASA standard operating procedures as in the SOP Operation from vessels Pilot must follow the CASA standard operating procedures as in the SOP with the exception that the requirement for a 30m safety zone cannot be applied so there must be a safety barrier between all persons and the RPA during take-off and landing area on the vessel as identified in the SOP. The RPA has a collision avoidance system that will keep it 5m clear of any object it detects. This system will need to be turned off when landing on vessels as it may cause problems with the landing 	Requires 2 Staff – Operator and Observer	Unlikely	Minor	Low	5	<ul style="list-style-type: none"> This is a first risk assessment and there are no revised controls Report all incidents Continue to monitor 					SOP – Senior Ranger Approval to operate – Senior Ranger. Operational tasking – RIC Flight operations - Pilot	February 2018

[illegible]

RPA FLIGHT LOGBOOK

Phantom 4 Serial number 07DJD9LOC11847

DATE	PILOT	SIGNATURE	OBSERVER
GPS CALIBRATION. Calibration is to be carried out at a surveyed point either at Manly base or a boat ramp before departure.			
Location		Time	
		Surveyed position	
FLIGHT 1		FLIGHT 2	FLIGHT 3
Outside no fly zones		Outside no fly zones	
Area clear and safe		Area clear and safe	
Weather suitable (<20kn, no rain)		Weather suitable (<20kn, no rain)	
Camera support removed & lens cleaned		Camera support removed & lens cleaned	
RPA Battery	%	RPA Battery	%
Controller battery	%	Controller battery	%
Tablet battery	%	Tablet battery	%
SD card		SD card	
Propellers attached correctly		Propellers attached correctly	
Compass calibrated (only if directed)		Compass calibrated (only if directed)	
Flight mode selected (P mode)		Flight mode selected (P mode)	
Nil warnings		Nil warnings	
Motor test		Motor test	
Camera test		Camera test	
Safe to fly indicated		Safe to fly indicated	
Safety Barriers up (if on a vessel)		Barriers up (if on a vessel)	
No other aircraft operating in the area		No other aircraft operating in the area	
Observer Ready		Observer Ready	
Take off time		Take off time	
Landing time		Landing time	
Total flight hours for the RPA		Total flight hours for the RPA	
Comments		Comments	

RPA FLIGHT LOGBOOK

Phantom 4 Serial number 07DJD9LOC11847

FLIGHT 4		FLIGHT 5		FLIGHT 6	
Outside no fly zones		Outside no fly zones		Outside no fly zones	
Area clear and safe		Area clear and safe		Area clear and safe	
Weather suitable (<20kn, no rain)		Weather suitable (<20kn, no rain)		Weather suitable (<20kn, no rain)	
Camera support removed & lens cleaned		Camera support removed & lens cleaned		Camera support removed & lens cleaned	
RPA Battery	%	RPA Battery	%	RPA Battery	%
Controller battery	%	Controller battery	%	Controller battery	%
Tablet battery	%	Tablet battery	%	Tablet battery	%
SD card		SD card		SD card	
Propellers attached correctly		Propellers attached correctly		Propellers attached correctly	
Compass calibrated (only if directed)		Compass calibrated (only if directed)		Compass calibrated (only if directed)	
Flight mode selected (P mode)		Flight mode selected (P mode)		Flight mode selected (P mode)	
Return to home set		Return to home set		Return to home set	
Nil warnings		Nil warnings		Nil warnings	
Motor test		Motor test		Motor test	
Camera test		Camera test		Camera test	
Safe to fly indicated		Safe to fly indicated		Safe to fly indicated	
Barriers up (if on a vessel)		Barriers up (if on a vessel)		Barriers up (if on a vessel)	
No other aircraft operating in the area		No other aircraft operating in the area		No other aircraft operating in the area	
Observer Ready		Observer Ready		Observer Ready	
Take off time		Take off time		Take off time	
Landing time		Landing time		Landing time	
Total flight hours for the RPA		Total flight hours for the RPA		Total flight hours for the RPA	
Comments		Comments		Comments	

EMBREY Teena

From: KLEKAR John
Sent: Thursday, 30 May 2019 3:23 PM
To: YETMAN Brendon; NOVAK Dan; KELLAM Jason
Subject: FW: Drones
Attachments: Standard Operating Procedure_very small Remotely Piloted Aircraft.docx; Attachment 2_Risk Assessment for RPA.docx; Attachment 3_RPA FLIGHT LOGBOOK.docx

Follow Up Flag: Follow up
Flag Status: Flagged

FYI, obviously we want to ensure that we are as safe as we can be. Here are some starter documents for use.
Regards John

From: DICKETTS Paul <Paul.Dicketts@des.qld.gov.au>
Sent: Thursday, 30 May 2019 3:15 PM
To: KLEKAR John
Subject: Drones

John,

Please find attached some drone operation docs as discussed.



Paul Dicketts
Ranger (Safety)
Coastal and Islands Region | QPWS & Partnerships
Department of Environment and Science
P 07 3101 2084
34 Trafalgar Street, Manly QLD 4179
PO Box 5178, Manly QLD 4179

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34 Trafalgar Street, Manly QLD 4179
PO Box 5178, Manly QLD 4179

Region	EFMP Operating \$509,750 2019/20 FY	EFMP SFMP \$300,000 2019/20 FY	TOTAL EFMP 2019/20 FY Regional Allocations
Great Barrier Reef, Marine	\$0	\$15,000	\$15,000
Coastal and Islands	\$50,000	\$30,000	\$80,000
Northern	\$50,000	\$30,000	\$80,000
Central	\$75,000	\$50,000	\$125,000
South East	\$234,750	\$105,000	\$339,750
South West	\$100,000	\$70,000	\$170,000
TOTALS	\$509,750	\$300,000	\$809,750

Strategic Fire Management Program (2019/20)																																			
Program Overview, Allocations & Business Rules																																			
Overview <ul style="list-style-type: none"> The program is based on the financial year in line with budget processes. Business Rules are established to guide on-ground delivery of the funding initiative. Funding allocations may be reviewed annually to align with strategic fire program priorities. 																																			
PROGRAM ELEMENTS <p>VT Program - \$686,135 for:</p> <ul style="list-style-type: none"> ~ aerial ignition programs ~ on-ground programs (ground burns, aerial burns, or non-burn treatments to address strategic management directions / priorities aligned to Values Based Management Framework (VBMF) processes. <p>New Enhanced Fire Management Program - \$300,000 for:</p> <p>Identified Red Flag, i-Zone mitigation and/or highest priority protection/wildfire interface areas (ground burns or non-burn treatments) i.e. treatments where the objectives are entirely related to fuel hazard reduction to protect adjacent life and priority - typically classic urban interface, such as boundary Type 1 (essential community infrastructure) and type 2 (urban interface, high density housing).</p>																																			
ALLOCATIONS <table> <tr> <th>Region</th><th>VT Program</th><th>New Enhanced Fire Management Project</th><th>TOTAL</th></tr> <tr> <td>GBR and Marine Parks</td><td>\$0</td><td>\$15,000</td><td>\$15,000</td></tr> <tr> <td>Coastal & Island Parks</td><td>\$10,500</td><td>\$30,000</td><td>\$40,500</td></tr> <tr> <td>North Qld</td><td>\$227,500</td><td>\$30,000</td><td>\$257,500</td></tr> <tr> <td>Central Qld</td><td>\$255,500</td><td>\$50,000</td><td>\$305,500</td></tr> <tr> <td>South East Qld</td><td>\$66,635</td><td>\$105,000</td><td>\$171,635</td></tr> <tr> <td>South West Qld</td><td>\$126,000</td><td>\$70,000</td><td>\$196,000</td></tr> <tr> <td>TOTAL</td><td>\$686,135</td><td>\$300,000</td><td>\$986,135</td></tr> </table>				Region	VT Program	New Enhanced Fire Management Project	TOTAL	GBR and Marine Parks	\$0	\$15,000	\$15,000	Coastal & Island Parks	\$10,500	\$30,000	\$40,500	North Qld	\$227,500	\$30,000	\$257,500	Central Qld	\$255,500	\$50,000	\$305,500	South East Qld	\$66,635	\$105,000	\$171,635	South West Qld	\$126,000	\$70,000	\$196,000	TOTAL	\$686,135	\$300,000	\$986,135
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South West Qld	\$126,000	\$70,000	\$196,000																																
TOTAL	\$686,135	\$300,000	\$986,135																																
<ul style="list-style-type: none"> Allowable costs against this funding: <ul style="list-style-type: none"> - Direct operational costs (including overtime for Red Flag, i-Zone or highest priority hazard mitigation burns). - Contract labour costs to deliver planned burning projects where internal capacity is not available. - External contractors (e.g. earth moving machinery, aircraft hire). - Internal heavy plant hire to the extent of its direct usage (i.e. daily) on the project. - Travel expenses directly associated with the project. - Materials and consumables directly required for the project. 																																			
BUSINESS RULES <ul style="list-style-type: none"> Expenditure against the program may be audited to ensure compliance with the business rules. Any expenditure outside the business rules will be transferred back to the region to be met from regional operational funding VT Enhanced Fire Program funding is allocated to support operational planned burn priorities which aligned with both the VBMF and QPWS Custodial Obligations. Costs that cannot be offset against this funding: <ul style="list-style-type: none"> - QPWS labour - QFleet vehicle lease costs - Radio equipment internal hire scheme costs - Training - Purchase of materials and consumables for future use (e.g. stockpiling). - Asset and attractive item purchases (any value) - Administrative costs (e.g., computer lease, telephone, electricity etc.). Cost centres must be established by the Region for projects. Multiple smaller projects should be rolled up on a region or sub-regional basis. Job cards should be maintained for all projects as these may be audited. Cumulative progress reporting is required quarterly for the September, December, March and June quarters. Additional reports may be sought, if required for closer program tracking or corporate reporting. Quarterly progress reporting, in the required format, must be submitted to fire.advice@des.qld.gov.au. Templates will be provided towards the end of each quarter. Outcome reporting in relation to the relative allocation of funding to deliver each specific planned burn and fuel reduction treatment will be achieved through the completion of Fire Reports in FLAME where funding source will be recorded as SFMP in order to facilitate enhanced reporting in relation to the areas of planned burning and fuel load treatment applied to different fire management zones, fire vegetation groups and key values. Fireline capital works projects and routine maintenance are funded under the Assets Group Capital Projects and LOC8 functions. However, SFMP funds can be used for <i>reasonable</i> fireline works <i>essential</i> for the burn to proceed, and where not funded elsewhere. Use of SFMP funds in this manner will be monitored for misuse and adverse impact on on-ground burn outcomes. High quality images of activity being undertaken that could be suitable for use in corporate publications or reports can be emailed to fire.advice@des.qld.gov.au or transferred via the networks T drive. 																																			
CONTACT <p>Email: fire.advice@des.qld.gov.au</p>																																			

EMBREY Teena

From: BEHRENDORFF Linda
Sent: Wednesday, 30 October 2019 3:37 PM
To: YETMAN Brendon; KLEKAR John
Subject: Fwd: enhanced fire \$\$ business rules
Attachments: image001.png; ATT00001.htm; image002.png; ATT00002.htm; SFMP_2019-20
_Allocations__Business_Rules.xlsx; ATT00003.htm

Hi gents,

Please see the business rules and funding allocations. We'll see where a drone may fit.

I didn't get a chance to discuss it with Barbara so will try again tomorrow.

Regards,
Linds

Sent from my iPhone

Begin forwarded message:

From: KINGSTON Barbara <Barbara.Kingston@des.qld.gov.au>
Date: 30 October 2019 at 3:06:59 pm AEST
To: BEHRENDORFF Linda <Linda.Behrendorff@des.qld.gov.au>
Subject: enhanced fire \$\$ business rules

Linda,
Apologies for the delay, had to attend to something unexpected. Here are the business rules. Ignore amounts in the attached spreadsheet, below 80 K for Enhanced fire \$\$ is right.

EMBREY Teena

From: DARGUSCH Marc
Sent: Tuesday, 10 December 2019 11:34 AM
To: EMBREY Teena
Cc: YETMAN Brendon; LAWTON Colin; HARVEY Peter
Subject: RTI document search request 19-211 - CM:RB – Seven Network - Due to GBRMCI
COB Thurs 12 Dec 19



Hi Teena – my contribution lies below

Regards, Marc

From: DARGUSCH Marc

Sent: Wednesday, 30 October 2019 2:21 PM
To: YETMAN Brendon
Cc: GREEN John; KLEKAR John; HARVEY Peter; LAWTON Colin; EDMED Greg; SEELEITHER Jamie
Subject: RE: Drones

Great – thanks Brendon. The talk here kept going – lots of new rules coming etc. Outcome was that RD approved that a drone was to be purchased for MBA and no more are to be purchased until policy/rules finalised.

Let's watch that space.

Regards, Marc

Marc Dargusch

Principal Ranger – Great Sandy Area
Coastal and Islands Region | QPWS and Partnerships
Department of Environment and Science

M 4(6) Personal inform P 07 54869960
Level 6, 12 on First Avenue, Maroochydore 4558
www.des.qld.gov.au

I give my respect to the traditional and custodial Aboriginal and Torres Strait Island Elders and Owners of the Land in which I work, live and walk.

From: YETMAN Brendon <Brendon.Yetman@des.qld.gov.au>
Sent: Wednesday, 30 October 2019 2:14 PM
To: DARGUSCH Marc
Cc: GREEN John; KLEKAR John
Subject: RE: Drones

Hi Marc,

John Klekar originally developed a business case for the purchase of 2 drones out of the wongari budget, but since then we were advised by Linda that there was fire initiative funds available for this type of purchase. So John K has re-tweaked the business case to reflect this. I have reviewed it and ok with it.

I have attached the draft business case for your review.



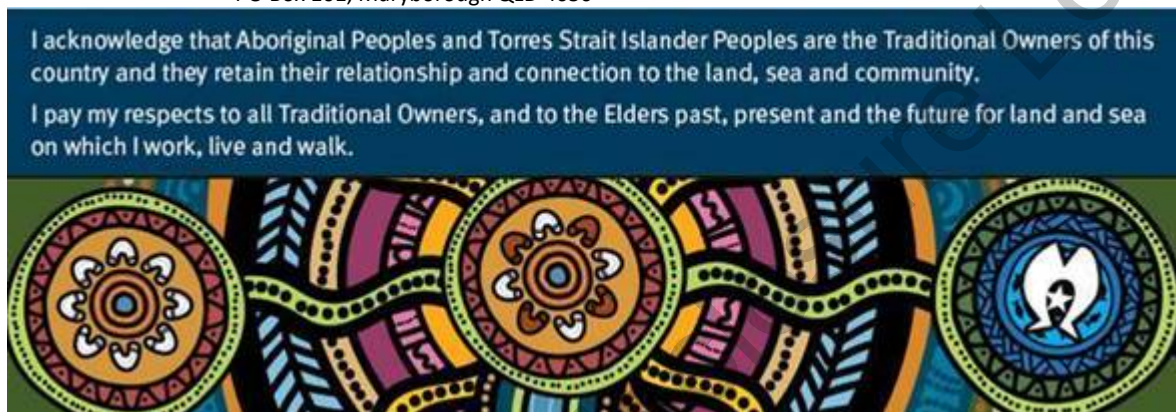
Cheers.

Brendon Yetman
Senior Ranger
Operational Support, K'gari (Fraser Island)
Coastal and Islands Region / QPWS and Partnerships

Department of Environment and Science

P 07 4302 8582 (Maryborough) M b4(6) Personal inform

102 Lennox Street (Cnr Alice Street), Maryborough QLD 4650
PO Box 101, Maryborough QLD 4650



From: DARGUSCH Marc <Marc.Dargusch@des.qld.gov.au>

Sent: Wednesday, 30 October 2019 1:26 PM

To: GREEN John; YETMAN Brendon

Subject: Drones

Hi there – a bit of ‘drone talk’ at RLT. Where did we get with drone stuff in GSA (other than current drone that resides at Rainbow Workshop) ?

Many thanks, Marc

Marc Dargusch
Principal Ranger – Great Sandy Area
Coastal and Islands Region | QPWS and Partnerships
Department of Environment and Science

M b4(6) Personal inform P 07 54869960

Level 6, 12 on First Avenue, Maroochydore 4558

www.des.qld.gov.au

I give my respect to the traditional and custodial Aboriginal and Torres Strait Island Elders and Owners of the Land in which I work, live and walk.

dji | STORE

PI-3417

Quotation Number: 3417

D1 Store Pty Ltd (ABN 49 618 215 044)
421 Victoria Street, Brunswick, VIC 3056
Tel: 1800 888 354
info@d1store.com.au

Bill To

Name: John Klekar
Company: Department of Environment and Science
Email: john.klekar@des.qld.gov.au
Contact Number: 0475 837 435
Address: 102 LENNOX STREET MARYBOROUGH QLD 4650

Ship To

To: John Klekar
Company:
Contact Number: 0475 837 435
Address: 102 LENNOX STREET MARYBOROUGH QLD 4650

Item	Price	Qty	Total
MAVIC2EPDUAL Mavic 2 Enterprise Dual			
MAVIC2P1 Mavic 2 Fly More Kit			
Shipping Fees (freefreight)			\$0.00
Discount Code (PROFORMA-DISCOUNT)			
			GST
			\$399.91
Grand Total (Incl GST)			\$4,399.00

Bank Name: National Australia Bank
Account Name : D1 STORE Pty Ltd
BSB: 083-237
Account No.: 92-455-8944

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure if the goods fail to be of acceptable quality. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure. All products carry return to base warranty unless otherwise stated. No advance replacement is available. Shipping / Insurance fees are paid by the customer when sending goods to D1 Store. D1 Store will pay shipping fees when sending back to the customer.

Please refer to our shipping and refund policy [here](#).

*If purchased DJI Care Refresh, please go to http://store.dji.com/dji_care_infos/active and complete the process within 48 hours after the main product has been activated.

Top Privacy Tips: Drones

Queensland government agencies using drones to record images and audio must comply with the privacy obligations in the *Information Privacy Act 2009* (Qld).

Here's our tips for operating drones in a privacy-respectful way:



1 Have a clearly defined purpose

This will enable you to identify what information needs to be collected, ensure this information is complete and relevant and minimise potential drone intrusions.

2 Know the laws

Be aware of and comply with all applicable laws, such as civil aviation regulations or laws about audio recording of conversations.

3 Design the drone program with privacy in mind

Building in privacy protections at the outset enables you to address issues more easily. Conducting a privacy impact assessment is highly recommended.

4 Engage with the community

People will - understandably - be concerned if they don't know who is filming them, what the footage will be used for or where the footage could end up. Have a clear and comprehensive communication strategy for informing the community about your drone use.

5 Develop policies and procedures to govern drone activities

Meet your privacy obligations by having clear protocols and policies for using drones, and communicate these to staff.

6 Secure personal information captured by the drone

Information can end up in the wrong hands if the drone or its signal is intercepted, lost or stolen. Take all reasonable steps to safeguard the information in the air and on the land.

7 Ensure contracted service providers comply with privacy obligations

If a contracted service provider will operate the drone or manage information collected by the drone, take all reasonable steps to contractually bind them to comply with the privacy principles.

8 Enable the community to exercise their right to access information held by government

The community cannot request access to information if they do not know it exists. Update your agency's list of personal information holdings to include information collected by drones.

Commercial Use

The preferred approach is to use a commercial activity permit (terrestrial) and a permit to conduct a media activity (marine – MBMP & GSMP). [Generally, UAVs 2kg and under will be exempt from requiring a permit \(see below\)](#). Nearly all enquiries have been, and will likely continue to be about using UAVs for commercial photography and filming purposes on QPWS estate. A process for permitting commercial activities not involving filming or photography may need to be determined on a case-by-case basis.

Using a UAV for commercial use means any activity that is conducted for gain. An application for a commercial activity permit should be made and assessed, including conditions of use appropriate to the permitted area. In-house legal advice has suggested that the definition of aircraft does not extend to UAVs under the *RAM Act*, *NCA*, *Forestry Act* and *MP Act*. Where it can be avoided and to provide greater certainty, an authority to use a UAV should not be based on legislative powers to regulate aircraft – for example, the preferred approach would be to issue a commercial activity permit rather than an authority to land an aircraft in terrestrial parks, and a permit to conduct a media activity rather than a permit to operate an aircraft in marine parks. The advice below will help to address some of the questions that have commonly been raised:

- [In areas governed by the RAM Act, Nature Conservation Act or Forestry Act a permit is required, with an exemption for UAVs 2kg or less:](#)
 - o (1) The ‘10-person or less’ exemption to filming or photography activities will apply when using a UAV that is [2kg or less](#), and a permit is not required.
 - o (2) Where the activity involves a UAV [over 2kg](#), the UAV should be treated as a prescribed structure and a commercial activity permit is required. A prescribed structure is “equipment used to facilitate filming or photography” (See *RAM Act* s 111, *NCA (PAM) Regs* s 96, *Forestry Regs* s 27). This recognises the low risk associated with drones 2kg and under and manages their use in accordance with the streamlined approach to filming and photography.
- [In Marine Parks \(Moreton Bay and Great Sandy only\) – UAV use for filming and photography amounts to a media activity:](#)
 - o (1) The use of UAVs [2kg and under](#) (low risk) should be classed as a “limited media activity” being “likely to have a negligible impact on the marine park or persons using the marine park”. A permit is not required.
 - o (2) The use of UAVs [over 2kg](#) should not be treated as a limited media activity. A permit is required. (See *MB Zoning Plan* s 14, *GS Zoning Plan* s 10).

Conditions similar to those imposed under aircraft permits should be used to manage potential impacts (e.g. prohibiting use in a shorebird nesting area).

Research Use

Appropriate conditions (e.g. prohibiting use in a shorebird nesting area) should be included in any research permit that is required in order to conduct the research, such as a permit for taking, using, keeping or interfering.

Recreational Use

While few (if any) enquiries of this nature are likely, it should be noted that there are currently no restrictions in place other than those imposed under civil aviation rules.

Civil Aviation Rules – for your information

Safe operation of a UAV is regulated by the Civil Aviation Safety Authority (CASA) (CASR Part 101). A UAV must not be operated above 400ft AGL and must remain clear of designated airspace, aerodromes and populous areas unless the operator has obtained additional approvals from CASA (CASR Part 101.C). At all times, the operator of a UAV is responsible for ensuring that the UAV is operated safely and remains clear of potential low level traffic, structures, power lines, etc. (CASR Part 101.B). All operators must operate UAV in line of sight and in daylight; must not fly closer than 30m to vehicles, boats, buildings or people; must not fly over any populous area (eg. Beaches, yards, heavily populated parks); and must not fly within 5.5km of an airfield (CASR Part 101.C, 101.F). Additionally, under civil aviation rules a commercial operator of a UAV must hold (1) a UAV controllers certificate or remote pilot certificate, and (2) an operator certificate.

Privacy and the Use of Drones

Review date: 27/02/2019

Version: 2.01

CHC/2016/2704

About this Toolkit

This toolkit provides a general overview of the use of drone technology and privacy implications in accordance with the *Information Privacy Act 2009* (the IP Act). It sets out some of the key privacy considerations to take into account when the department is considering the use of drones. It is not legal advice and there may be other issues to consider based on individual circumstances.

Privacy Services under the Business and Corporate Partnership

Business and Information Services provides privacy services to the agencies participating in the Business and Corporate Partnership¹.

The Information Privacy Act 2009

Queensland Government departments must comply with the Information Privacy Principles (IPPs) set out in Schedule 3 of the IP Act². This includes obligations on how departments collect, manage, use and disclose personal information.

Personal information is defined as:

... information or an opinion, including information or an opinion forming part of a database, whether true or not, and whether recorded in a material form or not, about an individual whose identity is apparent, or can reasonably be ascertained, from the information or opinion³

This broad definition essentially includes any information about an individual who can be identified (i.e. whose identity is obvious, or can be reasonably determined, from the information).

IPPs 1, 2 and 3 govern how personal information is collected, IPP 4 concerns storage and security of personal information, IPPs 5, 6 and 7 relate to a person's access to information an agency holds about them, IPPs 8, 9 and 10 relate to use of personal information and IPP 11 relates to disclosure of personal information.

In addition to the IPPs, the IP Act also contains privacy principles relating to the overseas transfer of personal information and the obligation to bind contracted service providers (who deal with personal information on behalf of a department) to the IPPs. Refer to Chapter 2, parts 3 and 4 of the IP Act).

What are Drones?

The most well-known type of drone is the unmanned aerial vehicle (UAV), which can be controlled remotely by a human operator or autonomously by an on-board computer. Depending on their function, drones can be fitted with sophisticated camera surveillance equipment.

What are drones used for?

Drones can be used for a number of purposes, including:

- crime prevention, detection and control
- event management
- fire detection and management (e.g. remote bushfire management)

¹ Departments in the Business and Corporate Partnership are Agriculture and Fisheries (DAF); Environment and Science (DES); and Natural Resources, Mines and Energy (DNRME).

² Section 27 of the *Information Privacy Act 2009* (IP Act). Note that the IPPs do not apply to Queensland Health, which must comply with the National Privacy Principles (NPPs) as per section 31 of the IP Act.

³ Section 12 of the IP Act



- search and rescue (e.g. aerial grid coverage of search areas)
- infrastructure monitoring (e.g. seek and repair of damaged or fallen power lines)
- disaster mapping and management
- environmental exploration and protection (e.g. coral reef monitoring)
- scientific research (e.g. wildlife species tracking)
- urban planning (e.g. aerial surveys of proposed development sites)

While drones are similar to fixed camera surveillance systems; their additional mobility and control features enable them to operate in previously inaccessible areas and potentially capture a broader range of information.

Privacy challenges for Drone technology

Any system used by the Queensland Government to collect, store, use or disclose personal information is subject to the privacy principles under the IP Act. This includes drones.

Drones will collect a variety of information, some of which will be personal and some of which will not. If the information cannot identify an individual, or if the information is not *about* an individual, there will be no privacy implications arising out of its collection, storage, use or disclosure. However, even if the information is not directly about an individual, it can still qualify as personal information if it reveals information about an identifiable individual.

Privacy considerations for the introduction of, and the use of, drone technology

Like any other project involving personal information, privacy should be included in the planning phase of the introduction of drones. It will also be an important consideration for the entire life cycle of any program or initiative using drone technology.

Some key considerations are discussed below and set out in Appendix A.

Build privacy in early! – complete a Privacy Impact Assessment (PIA) as part of project planning.

There is an established benefit in building privacy into a program at the beginning rather than 'bolting privacy on' later. Trying to manage privacy concerns after the program is in operation, particularly if there has been public concern or a privacy breach, has the potential to be both difficult and expensive, both retrofitting privacy to the program and managing any operational and social impacts.

Mapping the flow of personal information (e.g. how it is collected, used, disclosed, accessed, stored and deleted) will help to identify privacy vulnerabilities in a systematic way. It also means potential ways to manage, minimise or avoid those vulnerabilities can be identified early. Refer to the **Privacy Impact Assessment Guideline and Template** on your department's intranet (see link at the end of this guideline).

Collection of personal information by drones – IPPs 1 to 3

Government agencies wishing to use drones will need to consider how to manage personal information which may be collected by drone technology, regardless of whether it is collected deliberately or inadvertently in the course of fulfilling the purposes for which drones are deployed.

The introduction of drones raises the potential for camera surveillance to occur in personal spaces, such as a backyard. Drones could potentially collect a range of personal information; they would generally collect an individual's image, but could also collect additional information or details, such as geographical or street view of their place of residence, vehicle registration number, their activities, behaviours or location at a particular time, and conversations if the drone has the ability to record sound.

When the department collects personal information, even if the collection is inadvertent, it must ensure:

- the collection is for a lawful purpose directly related to a function or activity of the agency
- the collection is necessary to achieve that purpose
- the manner in which the collection occurs is not unfair or unlawful, and is not an unreasonable intrusion into an individual's personal affairs.

Is the collection necessary to achieve a lawful purpose, and directly related to the department's function?

Drones can potentially capture a broad range of information, some of which may not be relevant to the collecting agency's functions. The department should have a clearly defined and communicated purpose for using drones and these purposes need to be directly linked to the agency's functions.

The department also needs to consider ways to ensure that the collection of personal information by drones is lawful and fair. The use of fixed camera surveillance systems which collect personal information are more likely to be open and transparent because the cameras are often in plain sight and their use is generally signed. When an individual's personal information is collected by a drone they are unlikely to be aware of the collection.

Is the collection lawful and fair? Will the use of drone technology unreasonably intrude into an individual's personal affairs?

The flexibility of drones means they are capable of capturing information from an almost limitless range of locations within their scope of operation. For example, a drone used to measure vegetation levels on rural properties could also capture personal information about the individuals living and working on those properties.

Drones have the potential to blur the current distinction between public and private spaces and consequently the degree to which individuals have control over their personal information. The extent to which the impacted communities should be engaged in any discussions about the use and management of drones is a matter for each department to consider. For example, a Privacy Impact Assessment process could be used to engage with the community about drone use and management.

What reasonable steps will be taken to ensure individuals are aware of the collection?

When the department collects personal information from the individual it must take all reasonable steps to ensure the individual is aware of:

- the purpose for the collection
- any lawful authority for the collection
- anyone the personal information would normally be disclosed to by the department; and, anyone they in turn would pass the information onto.

This information is usually communicated in a collection notice (privacy statement) which may be written on a form or, in the case of fixed camera surveillance, a notice posted in the vicinity of the camera.

As it would not be practicable to provide a privacy statement to each individual whose information may be collected by a drone, the department should consider meeting its obligation to make individual's aware by developing a communication strategy. An effective communication strategy will ensure individuals whose information is likely to be captured have an opportunity to be made aware of the personal information that would be collected by drones.

In some limited circumstances agencies are not required to provide a privacy statement, for example when delivering emergency services, but it is unlikely that this would apply to the majority of situations for which drones may be used by the department.

Storage and security of personal information collected by drones – IPP 4

How will personal information collected by drone technology be stored and secured?

The IP Act requires that personal information held by a government agency (including when it is captured by drones) is protected against misuse, loss and unauthorised access, modification and disclosure.

Drones are able to capture information in a number of ways. Some store images on a hard drive located on the drone; others will transmit live footage back to a central point where it is then stored. Both of these methods have vulnerabilities.

Ensure that the storage and security of any personal information collected through drone technology is well planned, and that appropriate controls are in place on both the drone and backend systems that will store personal information. Security safeguards should be appropriate to the sensitivity of the information.

Records management implications

In addition to privacy considerations, the use of drones by government presents a number of recordkeeping challenges regarding the management of drone-generated records. It is highly recommended that agencies seek advice from [Records Management](#) to ensure any obligations under the *Public Records Act 2002* are adequately addressed.

Use and disclosure of personal information – IPPs 8 to 11

In general, the department should only use personal information collected by drones for the purpose it was collected, and only disclose the information to the individual it is about, except in limited circumstances. This is why it is beneficial to have a clearly defined purpose for use of drone technology.

However, it is possible that the department may find that the extra information collected by the drone for a particular purpose is necessary for a different function of the agency; or needs to be provided to a third party outside the department. In such situations, personal information can only be used or disclosed if any of the following apply:

- the use is directly related to the purpose for which the information was originally collected
- the individual it is about expressly or impliedly agrees to the use or disclosure
- the use or disclosure is reasonably necessary to prevent or limit a serious risk to an individual or to the public
- the use or disclosure is authorised or required under a law
- the use or disclosure is reasonably necessary for a law enforcement activity
- the use or disclosure is for a limited research purpose, and will not involve the publication of any personal information

Refer to the [use and disclosure decision flowchart](#), available in the privacy resources section on your department's intranet, or contact the Principal Governance Officer, Privacy for further advice (see links at the end of this toolkit).

Transfer of personal information out of Australia – section 33

The IP Act sets out additional requirements when personal information is transferred outside Australia. If the use of drone technology will involve the transfer of personal information outside Australia, you will need to consider the obligations in section 33 of the IP Act. Refer to the Office of the Information Commissioner (OIC) guideline on [Sending personal information out of Australia](#) for more information.

Outsourcing the use and management of drones – section 35

If the department intends to outsource the operation and management of its drone technology, including the management of information collected by drones, then it must ensure compliance with Chapter 2, Part 4 of the IP Act. Section 35 of the IP Act requires the department to take all reasonable steps to bind the contracted service provider to the privacy principles. Seek advice from Principal Governance Officer, Privacy early on as to whether Chapter 2, Part 4 obligations apply. See also the OIC guideline [Agency obligations when contracting](#).

Consider the possibility of privacy breaches and complaints

Be familiar with the department's Information Privacy Compliance Policy and the Information Privacy Complaints Management Procedure, both available on the department's intranet and [policy register](#).

Other legislation which may apply to the use of drones

There are also a number of other laws which could potentially apply to the use of drones, including:

- The obligations contained in the *Invasion of Privacy Act 1971* concerning the audio recording of conversations.
- The common law relating to trespass against a person.
- Section 227A of the *Criminal Code Act 1899* concerning observations or recordings in breach of privacy.
- Civil Aviation Safety Authority (CASA) requirements in relation to Unmanned Aircraft Systems.

- Australian Maritime Safety Authority (AMSA) requirements in relation to underwater vehicles.

Your department may wish to obtain separate guidance on the potential interaction of these laws with your drone management and use programs. Contact [In-house Legal](#) for further advice.

Further Information

This toolkit has been developed based on the Office of the Information Commissioner's Privacy Guidelines on Drones, including:

- [Privacy and drone technology](#)
- [Drones – collection, storage and security of personal information](#)
- [Drones – outsourcing, use and disclosure of personal information](#)

Other relevant guidelines include:

- **Privacy Impact Assessments** - refer to the **toolkit** on your department's intranet (relevant link below) and the OIC Guideline: [Privacy proofing your project – An introductory guide to conducting Privacy Impact Assessments](#)
- **The transfer of information overseas** - OIC Guideline: [Sending personal information out of Australia](#)
- **The engagement of contracted service providers** - OIC Guideline: [Agency obligations when contracting](#)

If you need advice on specific privacy issues in relation to drones or any other privacy matter, please contact the Principal Governance Officer, Privacy on (07) 3330 6270 or send an email to the below address.

Department	Email	Intranet Resources
DAF	privacy@daf.qld.gov.au	http://dafintranet/information-knowledge/information-privacy
DES	privacy@des.qld.gov.au	http://ehpintranet/information-knowledge/privacy
DNRME	privacy@dnrme.qld.gov.au	http://dnrmeintranet.lands.resnet.qg/information-data/managing/information-privacy

Information in this toolkit is of a general nature and is not legal advice. Additional factors may be relevant in specific circumstances. Changes to legislation after the update date are not included in this document
Published and last updated 27 February 2019

Appendix A - Key privacy questions for the use of Drone technology

Is there personal information?

- Is the drone likely to capture any information about an individual who can be identified (i.e. whose identity is apparent or readily ascertained)?
- If yes, complete a privacy impact assessment
- If in doubt, seek advice from Privacy Services

What personal information is being collected and how?

- Is information being collected for a purpose directly related to the department's function or activity?
- Is it necessary for the agency to fulfil the purpose?
- Is the information relevant? Does the agency need to collect all this information?
- Is the collection lawful and fair? Will it unreasonably intrude into an individual's personal affairs?

What steps will be taken to make individuals aware of the collection?

- How will individuals know about the collection and how their information will be handled?
- What is the communication strategy?
- Does the communication strategy include: the purpose for the collection; any lawful authority for the collection and anyone the personal information would normally be disclosed to by the department; and, anyone they in turn would pass the information on to?

How will personal information be stored and secured?

- Will the information be stored securely?
- How is the information captured by the drone? Is it collected on a hard drive located on the drone? Or is it transmitted to a central point?
- What steps will be taken to protect the information collected by the drone against misuse, loss and unauthorised access, modification and disclosure?

Will personal information be used for a secondary purpose or disclosed externally?

- Will the information be used for another purpose or shared externally?
- Does the agency have the authority to use and/or disclose the personal information?
- Be aware of the limitations on use and disclosure of personal information. Refer to Schedule 3 of the IP Act and the use and disclosure decision flow chart from your department's Privacy Toolkit. If in doubt, seek advice before the use or disclosure

Will personal information be transferred outside Australia?

- Will the information be put online (e.g. on a website or released through social media)?
- Will the information be transferred outside Australia (e.g. to an overseas third party or hosted on a cloud server)?
- Will the information collected by the drone be managed outside Australia?
- If yes to any of the above, contact Privacy Services for advice

Will there be outsourcing?

- Will the operation and maintenance of the drone technology be contracted to a third party?
- Will the information collected by the drone be managed outside the agency?
- If yes to any of the above, contact Privacy Services for advice

Cameras and Visual Recording Systems Guideline

Owner Business and Information Services
Last Reviewed 15/01/2019

CHC/2018/4210
Version 1.00

Purpose

This guideline provides a general overview of the use of individual cameras and visual recording systems including CCTV, hand held (including tablets and smart-phones), body and drone cameras and the implications of their use with respect to the *Information Privacy Act 2009* (the IP Act). It is designed to be an aid to developing local procedures governing the use of cameras as required under the *Privacy and Visual Recording Devices and Systems Policy*. It sets out some of the key privacy considerations to take into account when the department is considering the use of any form of camera. It is not legal advice and there may be other issues to consider based on individual circumstances. This guideline should be read in conjunction with the *Privacy and Visual Recording Devices and Systems Policy*.

Privacy Services under the Business and Corporate Partnership (BCP)

Business and Information Services', Privacy Compliance unit provides privacy services to the agencies participating in the Business and Corporate Partnership¹.

The Information Privacy Act 2009

Queensland Government departments must comply with 11 Information Privacy Principles (IPPs) set out in Schedule 3 of the IP Act. This includes obligations on how departments collect, manage, store, secure, use and disclose personal information.

Personal information is:

"... information or an opinion, including information or an opinion forming part of a database, whether true or not, and whether recorded in a material form or not, about an individual whose identity is apparent, or can reasonably be ascertained, from the information or opinion" (section 12 IP Act).

This broad definition essentially includes any information about an individual who can be identified (i.e. whose identity is obvious, or can reasonably be determined, from the information).

Not all information captured by camera technology will comprise personal information. If the information cannot identify an individual, or if the information is not about an individual, there will be no privacy implications arising out of its collection, storage, use or disclosure. However, even if the information is not directly about an individual, it can still qualify as personal information if it reveals information about an identifiable individual. Refer to the key privacy questions at **Appendix A** to assist you.

What do we mean by a visual recording system?

For the purposes of this guideline, a visual recording system encompasses all forms of camera recording used by the agency within a coherent and regulated system. It may also encompass individual devices where they are part of a process or system for managing specific activities. This guideline applies even where an individual visual recording device does not necessarily constitute a system. Visual recording devices and systems include:

- CCTV: closed circuit television cameras
- Body cameras: for example a GoPro
- Hand held cameras: any number of devices from which images may be taken and stored, i.e. on tablets and smart-phones
- Drone cameras: may be a GoPro or other device attached to a drone which is generally able to be remotely controlled or where data can be stored or relayed in real time to a computer system.

What are cameras used for?

Cameras within the BCP are used for a number of purposes, including:

- crime prevention, detection and control

¹ Departments in the Business and Corporate Partnership for whom privacy services are provided are: Agriculture and Fisheries (DAF); Environment and Science (DES); and Natural Resources, Mines and Energy (DNRME)

- monitoring building ingress (entry) and egress (exit) points
- monitoring for safety and security
- monitoring performance of the workforce or service providers
- ensuring appropriate behaviour
- event management
- promoting departmental services to the public (e.g. for newsletters, websites)
- fire detection and management (e.g. remote bushfire management)
- search and rescue (e.g. aerial grid coverage of search areas)
- infrastructure monitoring (e.g. identification and repair of damaged or fallen power lines)
- disaster mapping and management
- environmental exploration and protection (e.g. coral reef monitoring)
- scientific research (e.g. wildlife species tracking)
- urban planning (e.g. land or aerial surveys of proposed development sites).

Fixed camera surveillance systems are often installed with security and safety as their objective while mobile devices may have multiple uses and will capture a broader range of information by sheer virtue of their mobile capacity.

Privacy challenges for all camera technology

Like any other project involving personal information, privacy should be a consideration in the planning phase *before* cameras are introduced into the Department. Privacy will also be an important consideration for the entire life-cycle of any program or initiative using the various forms of camera technology. A [Privacy Impact Assessment](#) (PIA) needs to be completed for:

- all visual recording **systems**
- in some cases, individual devices which on their own may not constitute a system but may involve high risk, such as an individual drone camera which may capture images of many individuals.

PIAs should be reviewed if increasing the number of cameras on a system or adding to the uses to which they may be put. As part of the PIA process, mapping the flow of personal information (e.g. how it is collected, used, disclosed, accessed, stored and deleted) will help to identify privacy vulnerabilities in a systematic way. It also means potential ways to manage, minimise or avoid those vulnerabilities can be identified early. Privacy Services are available to provide advice and assistance with completing a PIA or determining whether a PIA is required.

It is important to define the purpose for purchasing and using visual recording devices and systems and to evaluate the efficacy of the system in terms of achieving objectives, complying with the IP Act and other legislative requirements, and providing value for money. The *Visual Recording Devices and Systems Policy* mandates these objectives and includes a requirement that a register of all visual recording systems, and individual devices used for high risk situations, (ie drones used for surveillance of individuals), be maintained by the Department. These requirements apply to all existing and new systems. There is no prescribed format for a register as business units may wish to use existing asset registers. However, an example is provided at **Appendix B**.

Collection of personal information – IPPs 1 to 3

The collection of personal information using cameras and visual recording systems runs the risk of the inadvertent capture of personal information particularly where mobile devices are used. Personal mobile devices should not be used to capture personal images unless approved under the department's [Bring Your Own Device \(BYOD\) Policy](#).

It is important to remember that the definition of personal information is very broad and may not only mean a person's identifiable image but also additional information or details, such as geographical or street view of residences, vehicle registration numbers, activities, behaviours or location at a particular time.

When the department collects personal information, even if the collection is inadvertent, it must ensure:

- the collection is for a lawful purpose directly related to a function or activity of the agency
- the collection is necessary to achieve that purpose
- the manner in which the collection occurs is not unfair or unlawful, and is not an unreasonable intrusion into an individual's personal affairs.

Is the collection necessary to achieve a lawful purpose, and directly related to the department's functions?

The department should have a clearly defined and communicated purpose for using camera technology and these purposes need to be directly linked to the agency's functions. This is particularly important when considering the use of drones which can capture a broad range of information in a less transparent way than that captured by personally operated or fixed cameras. Refer to [Privacy and the Use of Drones](#) for specific information.

Is the collection lawful and fair?

The department needs to ensure the collection is lawful and fair. Mobile cameras have the potential to blur the distinction between public and private spaces and consequently the degree to which individuals have control over their personal information. Because mobile cameras are capable of capturing information from an almost limitless range of locations, the unrelated capture of personal information about individuals in the vicinity could easily occur.

What reasonable steps will be taken to ensure individuals are aware of the collection?

When the department collects personal information from an individual it must take all reasonable steps to ensure the individual is aware of:

- the purpose for the collection
- any lawful authority for the collection
- who the information is disclosed to.

This information is usually communicated in a collection notice (privacy statement) which may be written on a form or, in the case of fixed camera surveillance, a notice posted in the vicinity of the camera. Providing a privacy notice which may be given to individuals, or made available via an agency's web site or via a reception counter will ensure that the department has taken the necessary and reasonable steps required to inform individuals about the use of visual recording systems.

Storage and security of personal information – IPP4

The IP Act requires that personal information held by a government agency is protected against misuse, loss and unauthorised access, modification and disclosure.

Cameras and other visual recording devices capture information in a number of ways. Some store images on a hard drive; others will transmit live footage back to a central point where it is then stored while other information is sent electronically, via a photo storage system, via email or uploaded directly via USB, memory card or a number of other means. All of these methods have vulnerabilities.

Departments must ensure that appropriate controls are in place on all front and backend systems that will store personal information. Security safeguards should be appropriate to the sensitivity of the information. Remember that if cameras are used for security and safety, their images must be fit for purpose i.e. clear enough and, in the case of CCTV, in the correct position (for example at an entry point at an adult head height) to provide an adequate record of the incident and the perpetrators and that this image is able to be viewed, secured and copied as appropriate (refer to [Capturing and managing surveillance and monitoring records](#)).

Information, Access and Amendment – IPPs 5-7

There must be a clear and easily accessible policy or procedure which enables users to evaluate what happens to personal information. An example of a local policy statement for CCTV is at **Appendix C**.

Remember that any information collected by cameras becomes part of the agency's general information holdings. As such, the information is subject to access and amendment rights under both the IP Act and the *Right to Information Act 2009* (the RTI Act). Ordinarily, the information is retained for 30-90 days, however, where information is required for an application, investigation or complaint the information must be retained until after the last business action which may range from one year to 7+years as per general official records. In addition, consideration should be given to the way camera footage is extracted from the system in response to requests such as for [Law enforcement and public safety](#) purposes.

All new purchases of visual recording devices and systems as well as existing systems should have a local procedure governing their purpose and operation, and identifying how the visual image is collected, stored, used and disclosed. This procedure should be made available to the public on request. The privacy team can provide assistance as required.

Use and disclosure of personal information – IPPs 8 to 11

In general, the department should only use personal information collected via visual recording devices and systems for the purpose it was collected, and only disclose the information to the individual it is about, except in limited circumstances. To ensure this is done, the procedure guiding use should be approved prior to purchasing the camera system, or at the very least prior to operation of the system, to ensure that the following rules apply:

- any use is directly related to the purpose for which the information was originally collected
- provision is made for the individual it is about to expressly or impliedly agree to any use or disclosure
- any use or disclosure is reasonably necessary to prevent or limit a serious risk to an individual or to the public
- any use or disclosure is authorised or required under a law
- any use or disclosure is reasonably necessary for a law enforcement activity
- any use or disclosure is for a limited research purpose, and will not involve the publication of any personal information.

For example, this means that approval for a CCTV system for security and safety reasons, should not then be used to monitor the hours of work of an employee (unless for security and safety reasons) or disclosed to other parties. This does not mean that system usage cannot change over time, but it does mean that the changed use is done appropriately and transparently e.g. direct reference is made in the procedure and privacy notice governing use or the notice under the CCTV camera is amended appropriately. Refer to the [Use and Disclosure—Decision Flowchart](#).

Transfer of personal information out of Australia – section 33

The IP Act sets out additional requirements when personal information is transferred outside Australia. If the storage, use or disclosure of any captured images will involve the overseas transfer of personal information consideration must be given to the obligations in section 33 of the IP Act. Refer to the OIC guideline on [Sending personal information out of Australia](#) for more information.

Outsourcing services – section 35

If the department intends to outsource the operation or management of its camera technology then it must ensure compliance with Chapter 2, Part 4 of the IP Act. Section 35 of the IP Act requires the department to take all reasonable steps to bind the contracted service provider to the privacy principles. Seek advice from the privacy team early to determine whether these obligations apply. See also the OIC guideline [Agency obligations when contracting](#).

Consider the possibility of privacy breaches and complaints

Be familiar with the department's Information Privacy Compliance Policy and the Information Privacy Complaints Procedure, both available on the department's intranet and policy register.

Consultation with the Community

Consider whether it would be appropriate to engage with the community about the need for using visual recording systems, particularly where these are in areas with a lot of public access and comprise permanent or semi-permanent systems. For example, it may help you to refine your objectives for using cameras if you provide a feedback form to gauge public opinion on the use of cameras at entrances to public areas.

Procurement

Because the price of camera technology has reduced in recent years, the purchase of most individual devices and many systems now falls below the notifiable procurement threshold. However, visual recording systems can be a high risk activity for the department. These systems are therefore required to go through an appropriate procurement process (refer [Non-routine procurement process](#)) which includes a risk assessment, as well as an information technology impact and risk assessment (refer [ICT-as-a-Service risk assessment guideline](#)) and a PIA before a new system can be installed or, in some cases, before additional purchases are made. Ideally, a business case setting out the necessity for such a system should be provided along with a means by which an evaluation of the efficacy of the system can be periodically reviewed. Consult with your local procurement officer prior to purchase.

Records management

In addition to privacy considerations, the use of visual recording devices by government presents a number of recordkeeping challenges regarding the management of generated records. It is highly recommended that advice is sought from [Records Management Services](#) to ensure any obligations under the *Public Records Act 2002* are addressed. For example, as outlined above, there are specific retention and disposal rules around the use of CCTV footage which is generally from the date of the last business action, commonly between 30 – 90 days, before taping over unless an incident has occurred in which case it must be retained as per other comparable public records in line with the Retention and Disposal Schedule for that type of record. For Arts Queensland, employees should manage records generated by a visual recording device or system in accordance with the retention period of 14 days or longer as prescribed by its operational procedure.

Information Technology

Visual recording systems use different technologies to record and store images and may require specialist software to read the files. Some systems may not be supported within the department. Information Technology Partners (ITP) need to be consulted to help determine the most cost-effective and appropriate solution (including hosting arrangements). Consulting ITP will ensure that completion of relevant information and technical assessments occurs and will also assist with record-keeping and procurement.

Other legislation

There are also a number of other laws which could potentially apply to the use of cameras, including:

- The obligations in the *Invasion of Privacy Act 1971* concerning the audio recording of conversations
- The common law relating to trespass against a person
- Section 227A of the *Criminal Code Act 1899* concerning observations or recordings in breach of privacy
- Civil Aviation Safety Authority (CASA) requirements in relation to Unmanned Aircraft Systems in the case of drones

- Australian Maritime Safety Authority (AMSA) requirements in relation to underwater vehicles.

In addition there are Queensland Government Standards (<https://www.qld.gov.au/web/guidelines>) and Australian Standards (www.standards.org.au) which have specific provisions guiding CCTV, information management and security classification.

While this guideline applies to the management of the devices and systems used for both overt and covert recording, the IPPs contained in the *Information Privacy Act 2009* do not apply to the *information captured* via covert recording done for a law enforcement purpose. Such information may be subject to the *Invasion of Privacy Act 1971* and the *Criminal Code Act 1995 (Cwth)*. Business areas undertaking covert recording for the purpose of compliance and enforcement activities should refer to relevant internal procedures and guidelines, and may wish to seek legal advice on the appropriate management of personal information captured via covert recording.

Departments may wish to seek legal advice on the development of legal signage and the application of the above laws and standards particularly when considering the implementation of extensive camera systems or those with higher potential risks.

Contact [In house Legal](#) for further advice. For Arts Queensland, legal advice should be sought in accordance with the Arts Queensland process for requesting legal advice.

Further Information

This guideline has been developed based on the Office of the Information Commissioner's Privacy Guidelines on CCTV and Surveillance Systems, including:

- [Camera surveillance and privacy](#)
- [Privacy and drone technology](#)

Other relevant guidelines include:

- **Privacy Impact Assessments** - refer to the **toolkit** on your department's intranet (see links below) and the OIC Guideline: [Privacy proofing your project – An introductory guide to conducting Privacy Impact Assessments \(PDF, 778.26 KB\)](#)
- **The transfer of information overseas** - OIC Guideline: [Sending personal information out of Australia \(PDF, 78.78 KB\)](#)
- **The engagement of contracted service providers** - OIC Guideline: [Agency obligations when contracting \(PDF, 354.61 KB\)](#)

If you need advice on specific privacy issues in relation to visual recording devices and systems or any other privacy matter, please contact the Principal Governance Officer, Privacy on (07) 3330 6270 or send an email to the privacy team at the address below.

Department	Email	Intranet Resources
DAF	privacy@daf.qld.gov.au	http://dafintranet/information-knowledge/information-privacy
DES	privacy@des.qld.gov.au	http://desintranet.lands.resnet.qg/corporate-functions/information-and-knowledge-management/privacy
DNRME	privacy@dnrme.qld.gov.au	http://dnrmeintranet.lands.resnet.qg/information-data/managing/information-privacy

Information in this guideline is of a general nature and is not legal advice. Additional factors may be relevant in specific circumstances. Changes to legislation after the update date are not included in this document
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Approval

Signed: sch4p4(6) Personal information
Ben Klaassen Acting Director-General Department of Environment and Science
Date: 15 January 2019

Version history

Date	Version	Action	Description / comments
15 January 2019	1.00	Approved by the Acting Director-General.	New document

Keywords

recording; devices; guideline; cameras; drones

Appendix A

Key privacy questions for the use of camera and visual recording technology

Is there personal information?

- will the device capture any information about an individual who can be identified (i.e. where the identity is apparent or readily ascertained)?
- If yes, speak to Privacy Services about whether a privacy impact assessment is required.

What personal information is being collected and how?

- Is information being collected for a purpose directly related to the department's function or activity?
- Is it necessary for the agency to fulfil the purpose?
- Is the information relevant? Does the agency need to collect all this information?
- Is the collection lawful and fair? Will it unreasonably intrude into an individual's personal affairs?

What steps will be taken to make individuals aware of the collection?

- How will individuals know about the collection and how their information will be handled?
- What is the communication strategy?
- Does the communication strategy include: the purpose for the collection; any lawful authority for the collection and anyone the personal information would normally be disclosed to by the department; and, anyone they in turn would pass the information on to?

How will personal information be stored and secured?

- Will the information be stored securely?
- How is the information captured? Is it collected on a hard drive or is it transmitted to a central point?
- What steps will be taken to protect the information against misuse, loss and unauthorised access, modification and disclosure?

Will personal information be used for a secondary purpose or disclosed externally?

- Will the information be used for another purpose or shared externally?
- Does the agency have the authority to use and/or disclose the personal information?
- Be aware of the limitations on use and disclosure of personal information. Refer to Schedule 3 of the IP Act and the use and disclosure decision flow chart from your department's Privacy Toolkit. If in doubt, seek advice before the use or disclosure.

Will personal information be transferred outside Australia?

- Will the information be put online (e.g. on a website or released through social media)?
- Will the information be transferred outside Australia (e.g. to an overseas third party or hosted on a cloud server)?
- Will the information collected be managed outside Australia?
- If yes to any of the above, contact Privacy Services for advice.

Will there be outsourcing?

- Will the operation and maintenance of the technology be contracted to a third party?
- Will the information collected be managed outside the agency?
- If yes to any of the above, contact Privacy Services for advice.

Appendix B

REGISTER – VISUAL RECORDING DEVICES & SYSTEMS

Department:

Division:

Business Unit & contact officer	Describe Device or system	Purpose	Date Purchased	Approval & reference (If appropriate)	Comments
XJY Unit John Jones, Snr Compliance Officer	10 body cameras	used by compliance officers to inspect and monitor fish catches in accordance with the xxx Act	3 cameras 9/9/16 as a pilot. 7 more cameras purchased 20/01/17	DDG approval eDocs ref: CX4234	A risk assessment and needs analysis was conducted followed by a pilot program which showed the value of body cameras. Refer (insert link or eDocs ref). Use is bound by the fisheries compliance manual, section 8.4 and complies with the Visual Recording Device Policy.

Appendix C

Privacy and CCTV Statement

The "insert business area" is committed to ensuring that personal information collected by our CCTV surveillance camera systems is handled in accordance with the 11 Information Privacy Principles (IPPs) contained in the *Information Privacy Act 2009* (Qld).

Purpose

"insert business area" has a CCTV surveillance system in place for safety, security and, where appropriate, monitoring activities conducted or performed within our premises. Such monitoring may include monitoring behaviour, compliance with entry requirements or "insert what is appropriate" in order to "insert why you need to do this". This information may be disclosed by us to "insert who disclosed to" or law enforcement agencies where there has been a breach of conditions of facility use, entry or service (delete what is not relevant) or where authorised or required by law. You may ask for a copy of our CCTV Procedure and our Privacy Policy by emailing "insert contact email".

Appropriate signage has been installed at entrance points and in either the immediate or general vicinity of cameras to advise that cameras are in operation.

Security, Storage and Retention

All CCTV footage is stored securely and will only be viewed and accessed by authorised people. The footage is retained in accordance with the *Public Records Act 2002*, which in most cases is until completion of the last business use, commonly for 30 – 90 days, unless it is required for official purposes, or as a retained public record.

Disclosure

Footage may be accessed by third parties in accordance with IPP11 which allows for disclosure of personal information:

- for law enforcement purposes
- for official investigations
- where individuals have agreed to the disclosure of their information
- where it is necessary for the health, safety or welfare of individuals or for public health reasons
- where otherwise required by law, including under the *Right to Information Act 2009*.

Public request for access

You can apply to access your personal information, including CCTV surveillance camera footage, under the *Right to Information Act 2009* and *Information Privacy Act 2009*. You can request information by [applying online](#) at <https://www.smartservice.qld.gov.au/services/information-requests/home.action>.

Alternatively, you can download the [Right to information and information privacy information access application form](#) and submit it:

- in person at any [government service centre](#)
- by mail, fax or email to [Right to Information Services](#).

Complaints about the way CCTV surveillance camera footage is collected, stored, used or disclosed

If you believe that we have breached your privacy in relation to surveillance footage containing images of you, you may make a privacy complaint.

The complaint should outline the basis for the complaint in as much detail as possible and include an address to which notices and correspondence may be sent during the complaint process. Privacy Complaints should be sent to the:

Privacy Officer

Department of "insert relevant department"
Level 31, 400 George Street, Brisbane
GPO Box 2454
Brisbane QLD 4001.

If you are not satisfied with the department's response or the department has not responded within 45 business days of your complaint, you may refer your privacy complaint to the Office of the Information Commissioner (OIC). For more information, visit the OIC website at www.oic.qld.gov.au.

Further information

For further information contact Privacy Services "insert relevant department privacy email", or for general information go to: [Privacy and right to information](#).

Published on DES Disclosure Log
RTI Act 2009

Standard Operating Procedure (SOP)

Queensland Parks and Wildlife Service

Commented [KJ1]: Header and Footer needs updating

Use of a very small remotely piloted aircraft (100g < 2kg) for management and compliance operations in Marine Parks

Commented [KJ2]: & Terrestrial Protected Estate

Purpose

The purpose of this SOP is to provide direction to personnel undertaking the operation of Remotely Piloted Aircraft (RPA) for management and compliance purposes by describing the actions to be taken by Queensland Parks and Wildlife Service (QPWS) personnel for the operation of the RPA.

Scope

This SOP has been developed to address the approval requirements and actions required for state marine parks personnel to operate an RPA.

Personnel must ensure they comply with this SOP and any other applicable legislation, codes of practice, policies and standards. See related and reference documents

Aviation Reference Number

- Before beginning operation of the drone an Aviation Reference Number needs to be obtained from CASA
- At least five business days before flying the drone for the first time, CASA needs to be notified via the online notification form.
 - <https://forms.casa.gov.au/Public/wizard/1b396e81-f96a-433c-b377-05e5aa11cba2/?portal=1&id=%7B1b396e81-f96a-433c-b377-05e5aa11cba2%7D&Form=RPAS&prepared=true&logGuid=45537f43-657e-462f-8874-02b61cb6f8d9>
 - Notification needs to be renewed with CASA every 24 months

Commented [KJ3]: Only one ARN issued to an organisation

Commented [KJ4]: Link does not work

Responsibilities

Senior Ranger

- The Senior Ranger is responsible for authorising staff to act as pilots of the RPA. Before doing so each pilot must be assessed to ensure that they have full awareness of,
 - The CASA requirements,
 - The controls and functions of the RPA,
 - The controller
 - The tablet
 - This SOP
 - The risk assessments for the operation of the RPA
- They must demonstrate that they are able to carry out a planned flight of the RPA.

Ranger in Charge

- The Ranger in Charge has operational control of the RPA and shall make sure that it is operated with in the requirements of CASA and this SOP and that all maintenance and records are maintained

Pilot

- The pilot is responsible for the operation of the RPA in line with the requirements of CASA and this SOP for a given task. The responsibilities include,
 - Carrying out the GPS calibration



Operational policy Operation of small remotely piloted aircraft (Drone)

- Planning the flight.
- Briefing staff
- All safety precautions regarding the operation of the RPA
- Carrying out the required pre-flight checks.
- Completing the Flight Logbook.
- Piloting the RPA during the flight to achieve the objectives of the flight
- Down loading and saving any files recorded during the flight.
- Charging the batteries at the end of the day

Observer

- The observer responsibility is to keep the RPA in sight at all times and to advise the pilot of any hazards that may arise.

Training

Before any actual flying is carried out trainees must demonstrate that they are familiar with the RPA User Manual and the CASA requirements for the operation of very small remotely piloted aircraft.

Trainees must practice on the in-app simulator before actually flying the RPA.

Pilots should be able to demonstrate good manual flight control of their RPA. Pilots should also be competent in all automated flight modes for RPA that can only be flown using automated piloting techniques. It is important for the pilot to be competent in both manual and automated flight for RPA that rely on manual control in the event of a loss or degradation of the autopilot.

- Training should be carried out using the actual RPA—or at least an RPA of the same category (i.e. multi-rotor, helicopter, aeroplane etc.) and weight class—that the pilot plans to operate post-training.
- CASA considers that five hours flight time is the minimum necessary to gain a basic level of competency for any category of RPA.
- The pilot should be taught to control their RPA within its design parameters and in varied operating conditions, including:
 - dealing appropriately with variable weather (e.g. strong winds)
 - abnormal flight situations
 - emergencies
 - system malfunctions.

Any person who will act as an observer—to assist the RPA pilot to avoid creating a hazard during flight of the RPA—should also be trained and thoroughly briefed on how they will alert the remote pilot to situations when hazards arise.

RPA Flight Log Book

Each RPA shall have a flight log book that shall be completed each time the RPA is used. A log form has been developed that provides fields for all items that are required to be recorded. (Attachment 3)

Procedure

- A RPA may only be operated,

Operational policy

Operation of small remotely piloted aircraft (Drone)

- By an Authorised Officer who has been trained in the safe operation of a RPA and is endorsed to pilot a RPA for QPWS purposes.
- And while there is a RPA observer who assists the remote pilot in the safe conduct of the flight.
- Prior to being endorsed as a RPA pilot, persons must be trained in the correct operating procedures and piloting of the RPA.
- As the RPA records video of the flight personal **must not** operate a RPA at a location where there is a reasonable expectation of privacy, to undertake private acts or places intended for private acts (e.g. toilet facility). If officers unintentionally obtain video of private acts, the video must be deleted and recorded in the flight logbook.
- CASA Standard Operating Procedures which **must** be followed at all times whilst operating a RPA:
 - You must only fly during the day and keep the RPA within visual line-of-sight.
 - You must not fly a RPA higher than 120 metres (400ft) above ground level.
 - You must keep a RPA at least 30 metres away from other people.
 - You must keep a RPA at least 5.5km away from controlled aerodromes.
 - The operation of a RPA within 3nm radius of an uncontrolled aerodrome or helicopter landing site is possible and lawful providing you do not operate on:
 - The approach and departure path or
 - Within the movement area or
 - Create a hazard to aircraft that may be using those areas. (Attachment 4)
 - You must not fly a RPA over any area where, in the event of a loss of control or failure, you create an unreasonable hazard to the safety of people and property on the ground.
 - You must not fly a RPA over or near an area affecting public safety or where emergency operations are underway (without prior approval from the Incident Controller).
 - This could include a fire and associated firefighting efforts, and search and rescue.
 - You can only operate one RPA at a time
- The RPA may be operated via the manual controls or through the auto take-off/landing function within the 'DJI GO' app.
- Before departing Manly Base or the boat ramp the GPS in the RPA **must be calibrated against a surveyed point**. This will require placing the RPA next to the survey point and turning on the RPA, the controller and tablet, and recording the GPS positions on the RPA Flight Logbook and taking a photo with the RPA camera that will be GPS tagged.
- Complete the pre-flight checks in the Flight Logbook
 - Check that you are not in a no fly zone. Use the CASA *Can I Fly There* App, <https://casa.dronecomplier.com/external>
 - Check that the area is clear and safe. No persons other than crew within 30 meters.
 - Check that the weather is suitable, wind less than 20 knots, no visual impairments e.g. rain, or heavy fog and heavy smoke.
 - Remove the camera support and check that the lens is clean
 - Check the RPA battery has sufficient charge for the planned flight
 - Check the controller has sufficient charge for the planned flight
 - Check the tablet battery has sufficient charge for the planned flight
 - Check that the SD card has been inserted in to the RPA
 - Attach propellers
 - Place the black propeller rings on the motors with black dots
 - Place the silver propeller rings on the motors without black dots
 - Follow the on-screen instructions to calibrate the compass if required.
 - Select flight mode P
 - Check that there are no warnings indicated
 - Carry out motor test
 - Carry out camera test

Commented [KJ5]: Before departing the QPWS Base

Commented [KJ6]: As per operating manual instructions

Operational policy

Operation of small remotely piloted aircraft (Drone)

- o Ensure that SAFE TO FLY is indicated on the tablet
 - o If operating from a vessel ensure that the safety barriers are in place
 - o Check that the observer is ready
 - o **If any of the checks or tests fail the flight must not proceed until the issue is corrected**
- Wherever possible, take-off and landing should be performed from land rather than a vessel so that the Return to Home (RTH) function can be used if contact is lost with the RPA
 - o This may involve disembarking the vessel onto a beach where there is a safe area to perform take-off and retrieval of the drone.
 - o If the RPA returns on the RTH function the vessel will most likely not be in the same location as when the RPA launched, therefore it may land in the water and be lost.
- Safety considerations when performing take-off and retrieval of the drone both on land and on board a vessel include:
 - o Clearing a suitable area on the vessel or land and ensure it is a safe area for the deployment and retrieval of the drone.
 - o Conduct a task briefing to inform all persons of the deployment/retrieval plan and ensure all crew maintain a safe distance from the landing/take-off zone.
 - o When operating from a vessel and because of the restricted area, it is not possible to maintain a 30 meter safety distance between people and the RPA. To maintain safety, operators are to ensure there is a barrier or net between the crew and the RPA take off/landing area on the vessel.
 - o DO NOT start the motors of the RPA until the area is clear of people and hazards
- To detach the propellers once the flight is completed and the RPA has been turned off, press down onto the motor mount and rotate the propeller according to the marked direction to unlock the propeller.
 - o DO NOT attempt to remove propellers until the RPA is shut down and propellers have stopped spinning completely and the battery is isolated.
- Once finished using the RPA Complete the 'RPA Flight Logbook to ensure the total RPA operating hours are monitored.

Emergency procedures

The RPA mission plan should detail the procedures to be followed in the event of an emergency, such as:

- engine/propeller failure
 - o If the RPA suffers an engine/propeller failure it will become unstable and come down. Mark the location of the crashed RPA and recover. If the RPA came down in the water it will sink and may be unrecoverable
- loss of control link
 - o If the link is lost the RTH function will activate and the RPA will return to the launch location and land and shutdown. All personnel must be warned that the uncontrolled RPA is returning and move to a safe location until the RPA has shut down. Transmission towers can cause interference with the radio controls for an RPA. The RPA should not be used within 1000 meters of a high power transmission tower as a precaution
- loss of control
 - o If the RPA loses any control functions the RPA will return to the launch location and land and shutdown. All personnel must be warned that the uncontrolled RPA is returning and move to a safe location until the RPA has shut down
- failure of navigation equipment
 - o If there is a failure of navigation equipment the pilot can take manual control and fly the RPA home. If this is not possible the RPA will slowly descend and land.
- Collision
 - o The primary collision avoidance system is the pilot and the observer working together to identify obstacles and take action to avoid them. The RPA is also fitted with an Obstacle

Operational policy Operation of small remotely piloted aircraft (Drone)

Avoidance System that when detecting an obstacle will stop the RPA and then climb to an altitude of about 5 meters above the obstacle before proceeding.

Accident and incident reporting

To help CASA and the Australian Transport Safety Bureau (ATSB) to monitor the safety of RPA operations, the RPA operator should report incidents and accidents for analysis and evaluation.

- These include:
 - A failure of the RPA to respond to flight commands from the RPS
 - Failure of the flight control unit (i.e. inertial measurement unit, global positioning system, inertial navigation system etc.)
 - Failure of the lost link program
 - In-flight collision with another aircraft, structure or person
 - RPA structural failures
 - Near misses with other aircraft
 - Any damage caused by collisions/handling.

Such instances should be reported in accordance with ATSB requirements (see website at <http://www.atsb.gov.au/>).

Immediate notification of accidents and serious incidents

- Accidents and serious incidents must be notified immediately to the ATSB in accordance with section 18 of the *Transport Safety Investigation Act 2003*.
- Written notifications must be submitted within 72 hours of an accident, serious incident or incident, in accordance with section 19 and regulation 2.6 of the *Transport Safety Investigation Act 2003*. The written notification should contain as much information about the accident, serious incident or incident as is within the knowledge of the person at the time of submitting the notification.

Related documents and reference documents

- Code of Conduct, <https://www.qld.gov.au/gov/code-conduct-queensland-public-service>
- Phantom 4 user Manual (Attachment 1)
- Casa web page for Commercial unmanned flight – RPS under 2 kg, <https://www.casa.gov.au/standard-page/commercial-unmanned-flight-remotely-piloted-aircraft-under-2kg>
- AC 101-10 Remotely piloted aircraft systems - operation of excluded RPA (other than model aircraft) <https://www.casa.gov.au/files/ac10110pdf>
- Office of the Information Commissioner Queensland- GUIDELINE Information Privacy Act 2009, https://www.oic.qld.gov.au/data/assets/pdf_file/0010/28099/guideline-camera-surveillance-and-privacy.pdf
- Work Risk Assessment – operation of Drones for Marine Park Management purposes (Attachment 2)
- Approach and departure paths for regulation 101.075 (uncontrolled aerodromes and Non-instrument Helicopter landing sites) (Attachment 4)
- CASA Can I Fly There app, <https://casa.dronecomplier.com/external>

Review and amendments

Because of the rapidly changing technology and requirements for the operation of RPAs this SOP shall be reviewed and if required amended not more than 1 year after the approval date below.

Commented [KJ7]: Corrected spelling

Operational policy

Operation of small remotely piloted aircraft (Drone)

Disclaimer

This SOP does not exclude the application of other codes, policies, guidelines or procedures which may become relevant to a particular situation or circumstances.

Approved by

Signature

Date

Damien Head

Regional Director

Great Barrier Reef and Marine Park Region

Queensland Parks and Wildlife

Enquiries:

Richard Orchard

Senior Ranger/Moreton Bay Marine Parks

Richard.Orchard@npsr.qld.gov.au

Phone: 07 3131 2890

Best Practice Guidelines:

Use of UAV (Drone) within the Great Sandy Marine Park – July 2015

1.0 Civil Aviation Rules

The use of a Unmanned Aerial Vehicles (UAV) is governed generally by the Civil Aviation Safety Authority (CASA), as outlined in Part 101 of the Civil Aviation Safety Regulations (CASR). A UAV must not be operated above 400ft (120m) above ground level and must remain clear of designated airspace, aerodromes and populous areas unless the operator has obtained additional approvals from CASA (CASR Part 101.C). Safe operation of a UAV is regulated by the Civil Aviation Safety Authority (CASA) (CASR Part 101).

For example:

- A UAV must not be operated above **400ft AGL (120 metres)** and must remain clear of designated airspace, aerodromes and populous areas unless the operator has obtained additional approvals from CASA (CASR Part 101.C).
- At all times, the operator of a UAV is responsible for ensuring that the UAV is operated safely and remains clear of potential low level traffic, structures, power lines, etc. (CASR Part 101.B).
- All operators must operate UAV in line of sight and in daylight; must not fly closer than **30m** to vehicles, boats, buildings or people; must not fly over any populous area (e.g. Beaches, yards, heavily populated parks); and must not fly within **5.5km of an airfield** (CASR Part 101.C, 101.F).
- Additionally, under civil aviation rules a commercial operator of a UAV must hold (1) a **UAV controllers certificate or remote pilot certificate**, and (2) an **operator certificate**.



2.0 Great Sandy Marine Park (GSMP)

As you are aware the GSMP is managed under the *Marine Parks (Great Sandy) Zoning Plan 2006*, and supporting regulations. The GSMP includes the airspace above the water to an elevation of 915m (3000ft). The term 'aircraft' is taken to include UAV's, **at this present time UAV's are classified as 'aircraft' under legislation, although this definition being investigated in a draft Departmental Policy.**

When QPWS are developing their Policy on UAVs the following are considerations:

- The impact on the marine species is unknown
- Noise levels
- Privacy on park users and
- Impacts on others enjoyment of the marine park
- Safety

3.0 WHALE WATCHING - use of UAV's around whales:

- *Issue:* The height restriction of 300m (as per the height distance for aircraft) is to be adhered to, as outlined in the *Nature Conservation (Wildlife Management) Regulation 2006*, and Commonwealth Dolphin and Whale Guidelines.
- *QPWS Policy Position:* Commercial whale watching operator are unable to obtain approval to fly UAVs closer than the min. approach distance and must comply with the 300m restriction – i.e. QPWS can issue/amend a Marine Park permit to allow the operator to use a UAV in the Marine Park (following QPWS assessment process/conditions), however the operator must still comply with the min. approach distance at all times (completely separate issue).

Scientific Whale Research (Scientific Purposes Permit required):

- The height restriction of 300m (as per the height distance for aircraft) is to be adhered to, as outlined in the *Nature Conservation (Wildlife Management) Regulation 2006*, and Commonwealth Dolphin and Whale Guidelines.
- Unless a research (scientific) purposes permit is obtained, this will be conditioned accordingly. For example, appropriate conditions (e.g. prohibiting use in a shorebird nesting area) should be included in any research permit that is required in order to conduct the research, such as a permit for taking, using, keeping or interfering.
- Applications for filming with UAV under a scientific purposes permit (is required for any threatened/protected species) and will be assessed on a case by case basis.

In summary for Research/Educational:

- UAVs are subject to the minimum approach distances to marine mammals of 300m, to which there is an exception to bring the UAV closer than 300m where written approval is given (ss 338O and 338P, Wildlife Management Regs)
- This approval is given in the form of a research/educational permit through EHP, which strictly limits approval for scientific or educational purposes (no commercial gain)

4.0 GENERAL

4.1 Commercial Filming and Photography (excludes whale watching/research) – refer to extract from the operational policy below.

In Marine Parks (Great Sandy) – UAV use for **filming and photography amounts to a media activity**:

- (1) The use of UAVs 2kg and under (low risk) should be classed as a “limited media activity” being “likely to have a negligible impact on the marine park or persons using the marine park”.
- (2) The use of UAVs over 2kg should not be treated as a limited media activity. A commercial activity permit (filming and photography) is required and will be managed on a case by case basis. (*GS Zoning Plan s 10*).

Commercial filming and photography in QPWS managed areas – Operational Policy (extract)

Proponents can minimise processing times by entering into pre-lodgement discussions with QPWS well in advance of the proposed activity. Such discussions may include site inspections and ensure that sufficient information is provided in the application to enable formal assessment to be completed satisfactorily. Accordingly, proponents are advised to complete and submit the on-line request for a pre-lodgement meeting at: www.business.qld.gov.au Search for... **‘Pre-lodgement enquiry form’** prior to submitting their application.

An applicant for a commercial activity permit for filming or photography must complete the relevant online application form at: www.business.qld.gov.au Search for... **‘Applying for a commercial activity permit’**, and pay applicable fees i.e. application fee and permit fee, to QPWS. A single application form for activities combining a State forest, protected area and recreation area is acceptable. Where applications for commercial activity permits involve **‘small scale filming and photography’** activities (see definition), permits will be produced online following completion of the online application form and payment of relevant fees. Applications involving activities other than small scale filming and photography will be forwarded to applicants within 40 business days of receipt of application and relevant fees.

ATTACHMENT 1:

RELEVANT LEGISLATION:

Nature Conservation (Wildlife Management) Regulation 2006

Chapter 7 Other offences relating to wildlife

Part 5A Marine mammals

338O Minimum distance for an aircraft

(1) A person in control of an aircraft must not, without a reasonable excuse—

- (a) operate or land the aircraft closer than the prescribed distance to a marine mammal; or
- (b) bring the aircraft to a position that would cause a marine mammal to come closer than the prescribed distance to the aircraft if the mammal continued on its direction of travel.

Maximum penalty—

- (a) if the prescribed distance is provided for by a special management declaration—165 penalty units; or
- (b) otherwise—120 penalty units.

(2) In this section—

aircraft does not include a helicopter.

prescribed distance means—

- (a) for a special management marine mammal, if the special management declaration for the mammal states the prescribed distance for an aircraft—the stated distance; or
- (b) for a marine mammal in a special management area, if the special management declaration for the area states the prescribed distance for an aircraft for the mammal—the stated distance; or
- (c) for a whale or dolphin other than a whale or dolphin to which paragraph (a) or (b) applies—300m.

338P Exception for approved filming of marine mammals

(1) Sections 338L(1), 338M(1) and 338O(1) do not apply to a person in control of a prohibited vessel or aircraft that is at a closer distance to a marine mammal than the prescribed distance for the mammal if—

- (a) the person, or another person on the vessel or aircraft, is filming the mammal; and
- (b) the person has written approval of the chief executive to bring the vessel or aircraft at the closer distance for the filming.

(2) The chief executive may impose conditions on an approval given under subsection (1), including, for example, conditions about what the person in control of the prohibited vessel or aircraft must do if the marine mammal moves towards the vessel or aircraft so that the vessel or aircraft is at a closer distance to the mammal than permitted under the approval.

(3) A person in control of a prohibited vessel or aircraft acting under an approval given under subsection (1) must comply with the conditions of the approval.

Maximum penalty for subsection (3)—

- (a) if the prohibited vessel or aircraft is at a closer distance to a marine mammal than permitted by a prescribed distance provided for by a special management declaration—165 penalty units; or
- (b) otherwise—120 penalty units.

INSTRUCTIONS:

Enter data in the Agenda template
This will populate the grey shaded sections on the Minutes Tab
Item 3 of the Agenda - Refer to the Compliance Schedule Tab for the relevant Region
Action Items - Once Minutes have been completed, select drop down field in Action Items field under each category and this will give you the list of Actions for next meeting. This can be copied and pasted into a new tab.

Date : 27/08/2018 10:47:09 AM
From : "KERRY Renae"
To : "BARRACLOUGH Emma" , "Coastal Islands Permits"
Cc : "WILLNER Samantha"
Subject : FW: Drones on K'gari (Fraser Island)
Attachment : Screenshot_2018-08-13-16-11-45.png;Screenshot_2018-08-13-16-12-01.png;image001.png;image004.jpg;image007.jpg;image002.png;image005.png;
Hey Emma

I spoke with Sam this morning about our drone responses and CASA regs. Have we got an up to date drone response that we can use for the eastern beach at Fraser?

<https://www.casa.gov.au/modelaircraft>

Thanks

Renae

From: WILLNER Samantha
Sent: Tuesday, 21 August 2018 9:33 AM
To: KERRY Renae
Subject: FW: Drones on K'gari (Fraser Island)

Good Morning Renae,

Would you be able to help out with this one please?

Do we have specific legislation that limits drone users on K'gari – specifically the western beach, that your aware of?

I found this - which states the below, but doesn't relate directly to us....

<http://bestlifeintheworld.com/the-drone-users-guide-to-australia/>

WHAT ARE THE RULES?

There are a set of nationwide rules laid out by CASA (Civil Aviation Safety Authority) – the government organisation who take the fun out of ...sorry, police the skies above Australia, so keeping them happy is your number one priority.

Australian country-wide rules for recreational users

For **recreational users and tourists** you have to adhere to a fairly simple set of flying rules to stay within the law:

- Keep your aircraft in visual line-of-sight i.e. not too far away and not behind buildings etc where you can't see it.
- Only fly in daylight hours
- Don't fly in clouds or foggy conditions
- Not closer than 30 metres to vehicles, boats, people or buildings
- Not over beaches, parks or sports pitches when there are in use
- Not higher than 120 metres
- Not within 5.5km of airfields, aerodromes and helipads

Cheers,
Sam ☺



Samantha Willner
Ranger – Public Contact
K'Gari, Dulingbura (Fraser Island South)
Department of Environment and Science
.....
☎ (07) 4127 9128
PMB 10, MS 2173, Rainbow Beach Q. 4581

I acknowledge that Aboriginal Peoples and Torres Strait Islander Peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community.

I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.



From: [redacted] Personal information <[redacted]@inet.net.au>

Sent: Monday, 13 August 2018 4:24 PM

To: WILLNER Samantha

Cc: Corro QPWS gbrmci CIR

Subject: RE: Drones on K'gari (Fraser Island)

Hi Samantha

Thanks for getting back to me so promptly. Everything is pretty much standard stuff except for the whole eastern coast being used as a landing strip.

- Please note that the Eastern beach is currently used for Air Fraser aircrafts landing and take-off purposes, so you wouldn't be able to fly in these areas.

If you see attached there are zones that are registered with CASA, the federal authority for landing zones, and they give info for drone flyers. According to CASA, the entire eastern beach is OK to fly drones as long as the conditions are met. This data is extracted from the CASA app "Can I Fly There?" and is published with the official Australian Government Coat of Arms

Would you please supply me with the legislation (Acts) and regulations that relate to your claim that the entire eastern beach is a no fly zone for drones.

Thanks in advance and kind regards

[redacted] Personal information

E: Personal information <[redacted]@inet.net.au>

M: [redacted] Personal information

From: WILLNER Samantha [mailto:Samantha.Willner@des.qld.gov.au]

Sent: Monday, 13 August 2018 3:29 PM

To: Personal information <[redacted]@inet.net.au>

Cc: Corro QPWS gbrmci CIR

Subject: Drones on K'gari (Fraser Island)

Good Afternoon [redacted] Personal information

In regards to operating a drone on K'gari (Fraser Island), here's a few tips you need to know:

- If you are using the footage for anything other than your personal use you will be required to obtain a permit through the following links below;
 - visitor management team at: sunshinefraserpermits@npsr.qld.gov.au or visit: <http://www.business.qld.gov.au/industry/tourism/parks-recreation-forests>
- Please note that the Eastern beach is currently used for Air Fraser aircrafts landing and take-off purposes, so you wouldn't be able to fly in these areas.

The following information has been taken from the Casa website and can be used in direct relation to flying over K'gari. If you need further relating to drone use generally, it can be found on the CASA web site at <https://www.casa.gov.au/aircraft/landing-page/flying-drones-australia>

Flying with control - rules for flying drones and model aircraft safely

When flying drones or model aircraft recreationally, you need to follow these simple drone rules to keep everyone safe.

- You should only fly in visual line-of-sight, in day visual meteorological conditions (VMC). What does that mean?
 - No night flying (generally).
 - No flying in or through cloud or fog.
 - Be able to see the aircraft with your own eyes (rather than through first-person-view [FPV, binoculars, telescopes]) at all times, (unless you operate under the procedures of an approved model flying association. Contact the [MAAA](http://www.maaa.org.au) for more information about flying FPV).
- You must not fly closer than 30 metres to vehicles, boats, buildings or people.
- You must not fly over populous areas such as beaches, heavily populated parks, or sports ovals while they are in use.

- In controlled airspace, which covers most Australian cities, you must not fly higher than 120 metres (400 feet) above the ground.
- You must not fly in a way that creates a hazard to other aircraft, so you should keep at least 5.5 km away from airfields, aerodromes and helicopter landing sites.
- You must not fly your RPA in or over prohibited / restricted area, unless you have the permission of the authority controlling the area.
 - In restricted airspace, aircraft movements are reduced to those with certain specified permissions. Examples of restricted airspace include airspace around military installations or military controlled aerodromes, over Sydney Harbour, high-density flying operations or at an air show or other large public event. Restricted airspace may also be imposed by police for safety or security reasons near bushfires or major crime scenes. It is illegal to fly your RPA in these areas without permission.

Operations within the 3nm (5.5km) radius of an aerodrome or helicopter landing site are possible and lawful providing you comply with the Standard Operating Conditions listed above and ensure that you do not operate:

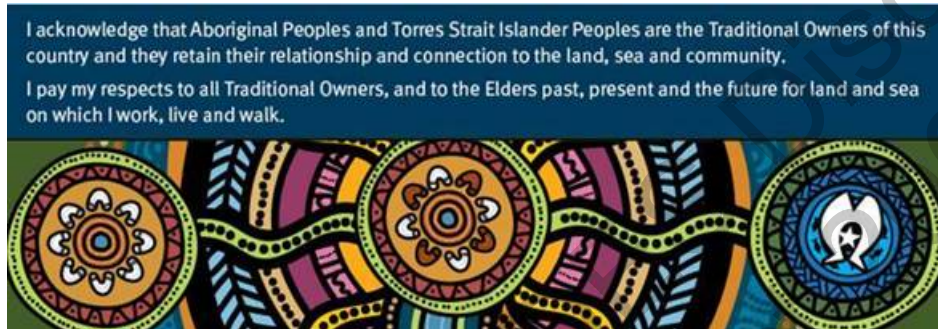
- on the approach and departure path, or
- within the movement area, or
- create a hazard to aircraft that may be using those areas.

If you need any further information please feel free to ask.

Kind Regards,



Samantha Willner
Ranger – Public Contact
K'Gari, Dulingbura (Fraser Island South)
 Department of Environment and Science
 (07) 4127 9128
 PMB 10, MS 2173, Rainbow Beach Q. 4581



From: QPWS
Sent: Monday, 13 August 2018 8:30 AM
To: QPWS
Subject: General question

Speaking with a ranger at Fraser Island yesterday he told me that the whole eastern beach is a no fly zone for drones. CASA and info from Kingfisher Resort say otherwise. There are some restrictions around the temp landing zones. Please clarify.

Customer Name: 4p4(6) Personal informa

Email: Personal @inet.net.au

Phone Number: 4(6) Personal inform

Operating System: Microsoft Windows NT 6.2.9200.0

Browser: Chrome68

Version: 68.0

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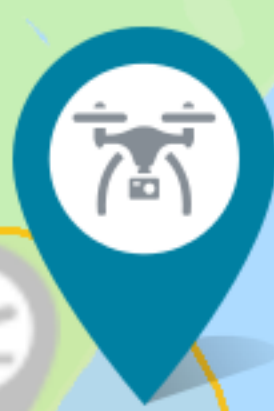
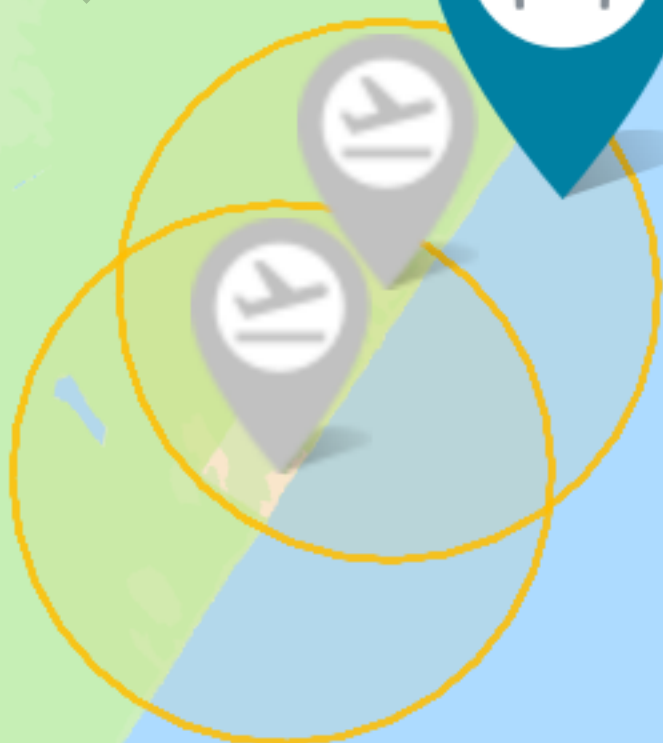
Can I Fly Th...



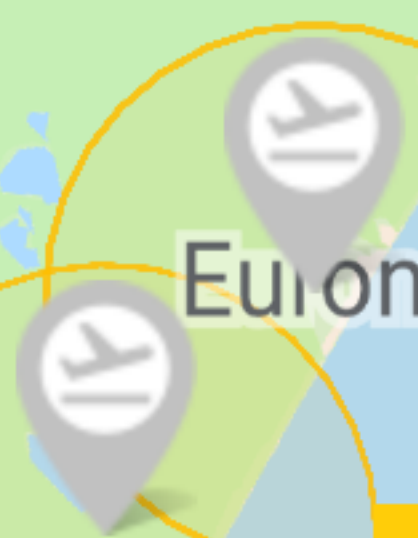
Fraser Island

Fraser Island

Published on DES Disclosure Log
RTI Act 2009



Eurlong



Google



Drone Complier





Can I Fly Th...



Warning - Restrictions apply here YELC ELI CREEK

If your drone weighs more than 100g, you must not launch within 5.5km of this aerodrome/helicopter landing site (HLS) if you are aware, or become aware, that manned aircraft are operating to or from this aerodrome/HLS.

If you are already flying your drone within 5.5km of an aerodrome/HLS and become aware that manned aircraft are operating to/from this aerodrome/HLS, you must manoeuvre safely away from the path of that aircraft and land as soon as it is safe to do so.

GOT IT

Release

Google



Drone Complier



Table 1: CASA regulations <i>Civil Aviation Safety Regulation, 1998; Part 101 Unmanned aircraft and rockets</i>	
General use	<p><i>All drone users must follow these rules:</i></p> <ul style="list-style-type: none"> Do not cause a thing to be dropped or discharged from a drone in a way that creates a hazard to another aircraft, a person, or property. Do not fly near people's homes and backyards. At all times, the operator of a drone is responsible for ensuring that the drone is operated safely and remains clear of potential low-level traffic, structures, power lines, etc. Do not operate a drone in a way that creates a hazard to another aircraft, another person, or property.
Recreational use	<p>Under 25kg— <i>Operators do not need a CASA-issued permit, licence or authority but MUST adhere to the following rules:</i></p> <ul style="list-style-type: none"> Do not fly over people. Do not fly through cloud or fog. Operators must be able to see their drone with their own eyes while flying a drone (NOT on an app screen or through first person view goggles or binoculars). No night flying. Do not fly closer than 30m to other people, unless the other person is essential to controlling or navigating the drone or the person is standing behind the drone while it is taking off. Do not fly over populous areas where—if the drone was to fail—it could hit someone. This could include beaches or parks*. Do not fly higher than 120m above the ground in all locations. Do not fly in a way that creates a hazard to people or other aircraft. Do not fly a drone in or over a prohibited or restricted area, unless you have the permission of the authority controlling the area. Examples of restricted airspace include airspace around military installations or military controlled aerodromes, high-density flying operations or at an air show or other large public event.
Recreational use	<ul style="list-style-type: none"> Do not fly a drone in the area of a public safety or emergency operation, for example a bushfire, police, or search and rescue operation. Only operate one drone at a time. Additionally, for drones which weigh more than 100 grams: <ul style="list-style-type: none"> do not fly within 5.5 kilometres of a controlled aerodrome (usually those that have a control tower) at any time. do not begin flying within 5.5 kilometres of a non-controlled aerodrome if there is a manned aircraft operating to, or from, the aerodrome. If an operator becomes aware of manned aircraft operating to or from the aerodrome or landing sight, they must manoeuvre away from the aircraft and land as soon as safely possible.

Table 1: CASA regulations <i>Civil Aviation Safety Regulation, 1998; Part 101 Unmanned aircraft and rockets</i>	
	<p>*An area is a populous area in relation to the operation of a drone if the area has a sufficient density of population for some aspect of the operation, or some event that might happen during the operation (in particular, a fault in, or failure of, the drone) to pose an unreasonable risk to the life, safety or property of somebody who is in the area but is not connected with the operation.</p> <p>25kg–150kg— <i>Operators do not need a CASA-issued permit, licence or authority and MUST follow the same rules as operators of drones under 25kg (above).</i> However, operators of drones weighing between 25–150kgs MUST have their drone inspected by a registered inspector from the Model Aeronautical Association of Australia (MAAA) prior to the first flight. Operators must also obtain a permit to fly from the inspector and consider specific conditions outlined by the MAAA before commencing a flight. The MAAA will inform operators of these conditions when issuing a permit to fly.</p> <p>Over 150kgs— <i>Operators of drones weighing over 150kgs must:</i></p> <ul style="list-style-type: none"> • have a manufacturer's data plate • have an aircraft registration identification plate • have a special certificate of airworthiness (restricted category), or an experimental certificate • have CASA approval prior to operation and • be certified as an operator of large RPA. <p>CASA will place conditions on the use of these drones.</p>
Commercial use	<p>Under 2kg— <i>Commercial operators do not require a CASA-issued permit, licence or authority.</i> However, they must register their drone with CASA and receive an <i>Aviation Reference Number (ARN)</i>. Operators must also notify CASA of their intended flight five days prior to the flight commencing.</p> <p><i>Operators must adhere to the following rules:</i></p> <ul style="list-style-type: none"> • Operators must be able to see their drone with their own eyes while flying a drone (NOT on an app screen or through first person view goggles or binoculars). • No night flying.

Table 1: CASA regulations <i>Civil Aviation Safety Regulation, 1998; Part 101 Unmanned aircraft and rockets</i>	
Commercial use	<ul style="list-style-type: none"> Do not fly closer than 30m to other people, unless the other person is essential to controlling or navigating the drone or the person is standing behind the drone while it is taking off. Do not fly over populous areas where—if the drone was to fail—it could hit someone. This could include beaches or parks*. Do not fly higher than 120m above the ground in all locations. Do not fly in a way that creates a hazard to people or other aircraft. Do not fly a drone in or over a prohibited or restricted area, unless you have the permission of the authority controlling the area. Examples of restricted airspace include airspace around military installations or military controlled aerodromes, high-density flying operations or at an air show or other large public event. Do not fly a drone in the area of a public safety or emergency operation, for example a bushfire, police, or search and rescue operation. Only operate one drone at a time. Additionally, for drones which weigh more than 100 grams: <ul style="list-style-type: none"> do not fly within 5.5 kilometres of a controlled aerodrome (usually those that have a control tower) at any time. do not begin flying within 5.5 kilometres of a non-controlled aerodrome if there is a manned aircraft operating to, or from, the aerodrome. If an operator becomes aware of manned aircraft operating to or from the aerodrome or landing sight, they must manoeuvre away from the aircraft and land as soon as safely possible. <p>*An area is a populous area in relation to the operation of a drone if the area has a sufficient density of population for some aspect of the operation, or some event that might happen during the operation (in particular, a fault in, or failure of, the drone) to pose an unreasonable risk to the life, safety or property of somebody who is in the area but is not connected with the operation.</p> <p>2kg–150kg— Commercial operators will either need a <i>remote pilot licence</i> and/or an <i>operator's certificate</i>. With these certifications, commercial users can operate outside the rules for drones under 2kg, with CASA approval. Operators must register their drone with CASA and receive an <i>Aviation Reference Number (ARN)</i>. Operators must also notify CASA of their intended flight five days prior to the flight commencing.</p> <p>Over 150kgs— <i>Commercial operators of drones weighing over 150 kgs must:</i></p> <ul style="list-style-type: none"> have a manufacturer's data plate

Table 1: CASA regulations <i>Civil Aviation Safety Regulation, 1998; Part 101 Unmanned aircraft and rockets</i>	
	<ul style="list-style-type: none"> • have an aircraft registration identification plate • have a special certificate of airworthiness (restricted category), or an experimental certificate • have CASA approval prior to operation and • be certified as an operator of large RPA. <p>CASA will place conditions on the use of these drones.</p>
NPSR use	<p>Under 2kg— No certification required but NPSR must register drone with CASA for an <i>Aviation Reference Number (ARN)</i> and notify CASA of the intended use five days prior to using the drone. <i>Drones used by NPSR must follow the same rules as those followed by commercial users of drones under 2kgs. See relevant section above in this table.</i></p> <p>Once registered, NPSR does not need to notify CASA every time staff use a drone—the original notification is valid for 24 months. After this time, NPSR will need to re-notify CASA of the intended use. ARNs are not assigned to individual drones so can be used for multiple drones.</p> <p>All owners of departmental drones should ensure that identification details are clearly marked on the drone (either with indelible ink or on a fire-proof identification plate). The identification details should include the ARN owner's name and ARN.</p> <p>Operators of departmental drones must also report any incidents and accidents to CASA. These include:</p> <ul style="list-style-type: none"> • failure of the RPA to respond to flight commands from the operator. • failure of the flight control unit (i.e. inertial measurement unit, global positioning system, inertial navigation system etc.). • failure of the lost link program. • in-flight collision with another aircraft, structure or person. • RPA structural failures. • near misses with other aircraft. • any damage caused by collisions/handling. <p>Written notifications of an accident, serious incident or incident must be submitted within 72 hours. The written notification should contain as much information about the accident, serious incident or incident as is within the knowledge of the person at the time of submitting the notification.</p>

Table 1: CASA regulations <i>Civil Aviation Safety Regulation, 1998; Part 101 Unmanned aircraft and rockets</i>	
	<p>Over 2kg— NPSR staff who wish to use drones weighing 2–25kg, must have a <i>remote pilot licence</i> and the department must have a <i>remotely piloted aircraft operators' certificate</i>.</p>

Date : 15/11/2019 7:55:52 AM
From : "BELCHER Ross"
To : "BURNHAM Mark"
Subject : RE: drone purchase, pilots and authorisation
Attachment : image001.png;image002.png;image004.png;image006.png;
No worries – not a priority! Cheers

From: BURNHAM Mark <Mark.Burnham@des.qld.gov.au>
Sent: Thursday, 14 November 2019 8:45 PM
To: BELCHER Ross
Subject: RE: drone purchase, pilots and authorisation

Hi Ross,
I am entrenched in the ICC at Boonah for the present SE and SW region wildfires. Will talk to you early next week. Was there minutes from the RLT as I hadn't received outcomes that Nicole was recording?

Cheers
Mark



Mark Burnham
Senior Conservation Officer- Technical Support
Coastal and Islands Region / QPWS & Partnerships
Department of Environment and Science

P 07 3164 3623
M (6) Personal info
60 Mt Nebo Rd The Gap
4061 Q.



From: BELCHER Ross
Sent: Thursday, 14 November 2019 12:01 PM
To: BURNHAM Mark
Subject: drone purchase, pilots and authorisation

Gday Mark,

I cannot recall where we got to in regard to moving on with the purchase of drones, including:

- Type (make and model, etc.)
- Specifications including weight
- Pilot identification, training and authorisation
- Storage and access to images and other data
- Budget
- Any other issues.

Do you have any further information?

Cheers



Ross Belcher
A/Manager (Moreton Bay Area)
Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships
Department of Environment and Science

P : 07 3101 2053
M (6) Personal info
34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

Date : 12/04/2019 4:07:00 PM

From : "CARTER Greg"

To : "REDENBACH Glenn"

Subject : FW: Drone Quote

Attachment : QUOTATION - 422328 from Garricks Camera House.pdf;image001.png;image002.png;image003.jpg;

For your consideration and approval.

Hi Glenn,

Please find attached the quote for the drone we discussed.

While this machine is more expensive (\$4,798) than the first one purchased (\$3,000) there are significant differences that would benefit our fire operations and pest management.

These include:

- Dual stabilised camera housing a high definition visible light and a Forward Looking Infrared imaging sensor. To have this capability prior to this machine coming on the market the cost would have been around \$10,000.
 - Provides a thermal image in low light to identify fire hot spots.
 - Allows for area measurement of lowest and highest temperatures specified by the pilot.
 - Spot meter for accurate temperature readings.
 - Isotherm sensor to allow the pilot to designate specific temperatures e.g. animals, people.
- Omnidirectional Obstacle Sensing - Left/right, up/down and forward/backward (the Phantom 4 does not have an upward sensor)
 - Safer for flying in forested areas.
- Self-heating batteries – warm batteries maintain maximum flight time.
 - Critical for cold weather operations i.e. planned burns in winter.
- GPS timestamping – encodes time, date and location on every recorded image.
- Kit also includes
 - Strobe beacon – for maintaining line of sight with the aircraft in low light.
 - Speaker – programmable with up to 10 custom voice messages.
 - Spotlight – dual spotlight ideal for search and rescue or fireline operations.
 - Two extra batteries, car charger and charging hub
 - Spare propellers
 - Hard case

Unlike the Phantom there will be no need to purchase a dedicated iPad as any iPhone can be connected to the controller. I understand most Senior Rangers and RIC's now have iPhones.

This is the latest technology available in the commercial drone market in the sub \$10,000 category.

Regards



Greg Carter

Senior Project Officer – Scenic Rim Trail
South West Region, Queensland Parks and Wildlife Service & Partnerships
Department of Environment and Science

P | (07) 4529 8366

M | (6) Personal info

Level 2, 146 Herries Street, PO Box 1442
Toowoomba QLD 4350

From: Camera House - Rockhampton (Garricks) <rockhampton@camerahouse.com.au>

Sent: Friday, 12 April 2019 2:59 PM

To: CARTER Greg

Subject: Drone Quote

Hi Greg,

Thank you for giving us the opportunity to again supply your department with goods on the attached quotation. Pricing here includes full setup, registration and delivery.

Regards,

n4p4(6) Personal informati

Garrick's Camera House – Rockhampton

☎: 07 49211479 | 📠: 07 49275641

✉: rockhampton@camerahouse.com.au | www.camerahouse.com.au

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RTI Act 2009

QUOTATION

P: 07 4921 1479

F: 07 4927 5641

E: rockhampton@camerahouse.com.au

Sold To:

Greg Carter

Dept. Environment & Science

QLD Parks & Wildlife

TOOWOOMBA 4350

Quotation No	422328
Quotation Date	12-APR-19
Valid Until	12-MAY-19
Customer No	p4(6) Personal inform.
Customer Ref/PO	
Staff Member	Dale W

Stock Code	Item Description	Qty	Item Price	Line Total
DJIMAVIC2ENTDUAL	DJI Mavic 2 Pro Enterprise Dual w/ Visible & Thermal Cameras	1		
DJIMAVIC2ENTPT1	DJI Mavic 2 Enterprise Edition Fly More Kit	1	p4(7)(1)(c) Business/commercial/professional/financial af	
SDSQXAF-064G-GN6	SanDisk Extreme microSDXC 64GB 100MB/s UHS-I A1 V30 Memory Card <i>Drone kit Contents:</i> 1 x Aircraft (DJI Mavic 2 Enterprise Dual) 1 x Remote Controller 1 x Battery Charger 1 x Power Cable 3 x Propeller (pair) 1 x Spare Control Stick (pair) 1 x Communication Cable-USB3.0 Type-C 1 x USB Adapter 1 x Extended Port Cover 1 x Speaker 1 x Spotlight 1 x Beacon 1 x RC Cable (Lightening connector, Slider Included) 1 x RC Cable (Standard Micro USB, Slider included) 1 x RC Cable (USB-C connector, Slider included) 1 x Hard Case ***** ENTERPRISE FLY MORE KIT 2 x Intelligent Self-Heating Flight Battery for Mavic 2 Enterprise Car Charger for Mavic 2 Pro/Zoom/Enterprise Batteries Battery Charging Hub for Mavic 2 Pro/Zoom/Enterprise Batteries Battery to Power Bank Adapter for Mavic 2 Pro/Zoom/Enterprise Batteries 2 x Low-Noise Propellers for Mavic 2 Pro/Zoom/Enterprise (One Pair) Shoulder Bag for Mavic 2 Pro/Zoom/Enterprise	1		



19-211

File E

Continued on next page...

Page 96 of 204Page 1 of 2

Date : 1/10/2019 9:17:50 PM

From : "DAVIES Matt"

To : "BURNHAM Mark"

Subject : FW: Drones for Aerial Incendiary works

Attachment :

image001.gif;image002.jpg;image009.png;image013.png;image016.png;image003.jpg;image004.png;image005.jpg;image006.png;image007.jpg;image010.png; Mark, FYI

Matt Davies

Acting Assistant Principal Ranger – Technical Support

Coastal and Island Parks | Queensland Parks and Wildlife Service

Department of Environment and Science

P (07) 5459 6102 | M (6) Personal info | E: matt.davies@des.qld.gov.au
12 First Avenue, Maroochydore Q. 4558



From: DAVIES Matt

Sent: Tuesday, 1 October 2019 9:16 PM

To: CIR Fire Team

Cc: MACDONALD Stirling; KINGSTON Barbara

Subject: RE: Drones for Aerial Incendiary works

Thanks Gemma,

I understand the question and can appreciate the conflicting advice....

I think Barbara is best placed to advise and will await her commentary on this.

Matt

Matt Davies

Acting Assistant Principal Ranger – Technical Support

Coastal and Island Parks | Queensland Parks and Wildlife Service

Department of Environment and Science

P (07) 5459 6102 | M (6) Personal info | E: matt.davies@des.qld.gov.au
12 First Avenue, Maroochydore Q. 4558



From: CIR Fire Team <CIR.FireTeam@des.qld.gov.au>

Sent: Tuesday, 1 October 2019 3:18 PM

To: EDMED Greg; GLASS Phil; MACDONALD Stirling; DAVIES Matt

Subject: FW: Drones for Aerial Incendiary works

From: BLAKE Gemma

Sent: Tuesday, 1 October 2019 3:18:01 PM (UTC+10:00) Brisbane

To: Fire Advice

Cc: CIR Fire Team; BEHRENDORFF Linda; CANT Mark

Subject: FW: Drones for Aerial Incendiary works

Hi fire team,

During the drone presentation that we organised a few weeks ago, the question was asked if drone AIS contractors such as Aerworks need to hold a QLD weapons licence or are they able to operate under our GSE. Following this discussion I have been asked on numerous occasions for advice on this matter from Aerworks as the presentation seemed to generate interest from other RFC's across the state. I am seeking advice to ensure I respond appropriately.

My understanding is that Under 7A of the QLD Weapons Categories Act 1997 an incendiary machine is classified under Cat M requiring an M cat on the license. QPWS is exempt for use under schedule 3 of the Weapons regulations but anyone outside of those GSE's listed in Schedule 3 need to have the cat M endorsed on their firearms licence. According to this advice, Aerworx are willing to apply for a QLD weapons licence, however have been advised from weapons licensing that they will need a letter from QPWS to support their application.

However, based on the extract provided by Mark Cant below, I understand that "the operator of an aerial incendiary machine **does not require a firearms licence, including under CASA**", provided they are under the direction of a QPWS employee.

Therefore, can a member of the fire team please advise if a letter from us is appropriate and if so please help organise a one that would apply state wide rather than just regionally applicable? I believe any window of opportunity to utilise this technology next burn season will be short and therefore best to organise the necessary paperwork well in advance to keep our options open when the season commences (depending of course on where our drone policy is sitting at this time).

16.2 Category M firearms - Incendiary machines and devices

Exemption

Incendiary machines and devices used in fire management are classified as Category M weapons. Through the DNPSR/QPWS Group firearms licence, QPWS is exempt from requiring a firearms licence to use these devices. The exemption allows authorised QPWS employees to possess and use registered 'specified category M weapons', to conduct departmentally approved activities which are part of the employee's role within the GSE. The operator of an aerial incendiary machine does not require a firearms licence, including under CASA regulations.

However, employees required to possess and use registered 'specified category M weapons' must be trained to the standards required under the National Fire Competencies for operating these machines and devices, and be accredited to the levels outlined in the QPWS Firearms Training Standard.

If a letter is deemed appropriate: please see the request quoted from 3FB Aerworx : 'In relation to the letter, we are looking for a general letter that we can provide to provide Qld police in support of our application for the required gun license.

The letter can be general in nature, stating that if (when) we are working in Queensland in the coming months it will be in conjunction with QP&WS and it would be under the supervision of burn controller, OIC or sector commander etc. That we have shown you the unit and that you believe that there is a use for it as part of your tool box going forward.

Personal 3FB Aerworx principle director, is working on meeting the licensing requirement with Queensland Police and can provide additional information or discuss further with relevant person. Peter is contactable on the office number below or 6) Personal info Thanks in advance

Regards,



Gemma Blake

Ranger- Fire, Pest and Firearms Management
Technical Support – Coastal and Islands Region
Queensland Parks and Wildlife Service and Partnerships
Department of Environment and Science
P 07 3164 3613 | M 06) Personal info | E Gemma.Blake@des.qld.gov.au
60 Mt Nebo Rd | The Gap

From: CANT Mark <Mark.Cant@des.qld.gov.au>
Sent: Monday, 9 September 2019 11:57 AM
To: BLAKE Gemma
Subject: RE: Drones for Aerial Incendiary works

I reckon the RD could be convinced to sign something like that – probably should go thru in-house legal though. Very formally our Section 48 Permit NCA Regulations 2017 we use is screwed down so tightly by in-house legal that it cannot be changed from a Pest Controlling activity. The Region probably has alternative approval process from RD to allow any contractual work on estate?
I am guessing a contract document from us cannot be provided until they have the exemption (catch 22).

48 Additional matters to be stated on protected area authority

A protected area authority granted under this division must also state the following—

- (a) the protected area that may be entered or used under the authority;
- (b) the purpose for which the entry or use is authorised;
- (c) if the authority authorises the holder to take, use, keep or interfere with the cultural or natural resources of the area—the cultural or natural resources that may be taken, used, kept or interfered with under the authority;
- (d) if the authority is granted to a corporation—the name of the individual in charge of the activity to be carried out under the authority.

Mark Cant
QPWS&P

From: BLAKE Gemma <Gemma.Blake@des.qld.gov.au>
Sent: Monday, 9 September 2019 11:37 AM
To: CANT Mark
Subject: RE: Drones for Aerial Incendiary works

Thanks Mark. Just spoke with person from Airworks. They have received advice form QLD weapons licencing branch to say that if they can submit a letter from us (with our letter head on it etc.) stating that we would like to use their company as a contractor for AIS, than weapons licencing with grant them an exemption also. Do you think this is some-thing we are able to provide?

Regards,
Gemma



Gemma Blake

Ranger- Fire, Pest and Firearms Management
Technical Support – Coastal and Islands Region
Queensland Parks and Wildlife Service and Partnerships
Department of Environment and Science
P 07 3164 3613 | M 06) Personal info | E Gemma.Blake@des.qld.gov.au
60 Mt Nebo Rd | The Gap

From: CANT Mark <Mark.Cant@des.qld.gov.au>

Sent: Monday, 9 September 2019 11:34 AM

To: BLAKE Gemma

Subject: FW: Drones for Aerial Incendiary works

Hi Gemma, My advice would be that our GSE is only for QPWS staff and does not cover contractors (if we had our own drones doing the work it would be OK). They would be required to have a Qld Police Firearms Licence. I would be putting it onto the company to confirm that thru Weapons Licencing as part of their business approval to operate.

16.2 Category M firearms - Incendiary machines and devices

Exemption

Incendiary machines and devices used in fire management are classified as Category M weapons. Through the DNPSR/QPWS Group firearms licence, QPWS is exempt from requiring a firearms licence to use these devices. The exemption allows authorised QPWS employees to possess and use registered 'specified category M weapons', to conduct departmentally approved activities which are part of the employee's role within the GSE. The operator of an aerial incendiary machine does not require a firearms licence, including under CASA regulations.

However, employees required to possess and use registered 'specified category M weapons' must be trained to the standards required under the National Fire Competencies for operating these machines and devices, and be accredited to the levels outlined in the QPWS Firearms Training Standard.



Mark Cant

Senior Project Officer – Pest and Firearms

Technical Services

Queensland Parks & Wildlife Service & Partnerships

Department of Environment and Science

P 07 4529 8320 | M (b) Personal info
146 Heerries St

Toowoomba Q 4350

Date : 28/08/2018 8:37:18 AM
From : "KERRY Renae"
To : "BARRACLOUGH Emma" , "Coastal Islands Permits"
Subject : FW: Drones on K'gari (Fraser Island)
Attachment : image001.png;image003.jpg;image005.jpg;image004.png;image006.png;image007.png;

From: WILLNER Samantha
Sent: Tuesday, 28 August 2018 8:22 AM
To: KERRY Renae
Subject: FW: Drones on K'gari (Fraser Island)

Good Morning Renae,

Can I please hand this over, he is causing me a headache.

Thank you! ☺



Samantha Willner
Ranger – Public Contact
K'Gari, Dulingbura (Fraser Island South)
Department of Environment and Science
☎ (07) 4127 9128
PMB 10, MS 2173, Rainbow Beach Q. 4581

I acknowledge that Aboriginal Peoples and Torres Strait Islander Peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community.

I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.



From: [redacted] sch4p4(6) Personal information <[redacted]@inet.net.au>
Sent: Monday, 27 August 2018 4:45 PM
To: WILLNER Samantha
Subject: RE: Drones on K'gari (Fraser Island)

Me again Samantha

I just read back through both of your emails again and found that in neither of your emails have you stated that the whole eastern beach is a no fly zone, only those bits that are within the radius of the daily landing strips. Therefore, you have clarified that I was incorrectly advised by the ranger and It is perfectly legal to fly a drone anywhere on Fraser Island meeting CASA guidelines.

Thank you for your assistance and it would be appreciated if all of the rangers were updated with this correct information.

Kind regards

[redacted] p4(6) Personal information

E: Personal information <[redacted]@inet.net.au>

M: [redacted] p4(6) Personal information

From: [redacted] sch4p4(6) Personal information <[redacted]@inet.net.au>
Sent: Monday, 27 August 2018 3:53 PM
To: 'WILLNER Samantha'
Subject: RE: Drones on K'gari (Fraser Island)

Hi Samantha

Thanks for the link to CASA "Directive" which details parts of the Federal Act and Regulation. I am already aware of this and have, and will continue to meet these requirements. I direct you to the following section:

5 Directions relating to the operation of unmanned aircraft near aerodromes that are non-controlled aerodromes

- (1) I direct that a person must not launch an unmanned aircraft within 3 nautical miles of the movement area of a non-controlled aerodrome if the person is aware that a manned aircraft is operating to or from the aerodrome.
- (2) If a person controlling an unmanned aircraft within 3 nautical miles of the movement area of a non-controlled aerodrome becomes aware that an aircraft is operating to or from the aerodrome, I direct the person controlling the unmanned aircraft to:
 - (a) immediately ensure that the unmanned aircraft is safely manoeuvred away from the path of the manned aircraft; and
 - (b) land the aircraft as soon as safely possible.

If you read this correctly you will find that drones are not excluded from flying in or in proximity of the non-controlled aerodromes which also include those that are recognised non-controlled aerodromes on Fraser Island.

As I have repeatedly asked you for State Legislation and Regulations and you have not been able to supply this, I will take this as confirmation that the State of Queensland has no such laws and will continue to respect the federal laws as they stand.

While I understand that the non-controlled aerodromes on the east coast of Fraser Island may move a little, it is clear from the information provided by CASA that the whole eastern coast of Fraser Island is not a restricted area and drones may legally be flown there.

I am satisfied with the information that has been provide by the Queensland State Government and the Federal Government and will continue to abide by the laws of both.

Kind regards

sch4p4(6) Personal information

E: sch4p4(6) Personal information@inet.net.au

M: sch4p4(6) Personal information

From: WILLNER Samantha [<mailto:Samantha.Willner@des.qld.gov.au>]

Sent: Monday, 27 August 2018 11:05 AM

To: Gavin Flaherty

Subject: Drones on K'gari (Fraser Island)

Good Morning sch4p4(6) Personal information

Thank you for asking the finer details; please see the link below which specifies the current legislation that governs QPWS.

<https://www.legislation.gov.au/Details/F2017L01370>

You will notice that it specifically talks about non-controlled aerodromes (which relates to K'gari). Air Fraser use the beach as a landing strip and often change the areas of which they land due to tidal changes to the beach landscape.

Hopefully this gives you the information you require.

Kind Regards,



Samantha Willner
Ranger – Public Contact
K'Gari, Dulingbura (Fraser Island South)
Department of Environment and Science

(07) 4127 9128

PMB 10, MS 2173, Rainbow Beach Q. 4581

I acknowledge that Aboriginal Peoples and Torres Strait Islander Peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community.
I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.



From: sch4p4(6) Personal information@inet.net.au>

Sent: Monday, 13 August 2018 4:24 PM

To: WILLNER Samantha

Cc: Corro QPWS gbrmci CIR

Subject: RE: Drones on K'gari (Fraser Island)

Hi Samantha
19-211

File E

Page 102 of 204

Thanks for getting back to me so promptly. Everything is pretty much standard stuff except for the whole eastern coast being used as a landing strip.

- Please note that the Eastern beach is currently used for Air Fraser aircrafts landing and take-off purposes, so you wouldn't be able to fly in these areas.

If you see attached there are zones that are registered with CASA, the federal authority for landing zones, and they give info for drone flyers. According to CASA, the entire eastern beach is OK to fly drones as long as the conditions are met. This data is extracted from the CASA app "Can I Fly There?" and is published with the official Australian Government Coat of Arms

Would you please supply me with the legislation (Acts) and regulations that relate to your claim that the entire eastern beach is a no fly zone for drones.

Thanks in advance and kind regards

4p4(6) Personal informa

E:) Personal in @iinet.net.au

M p4(6) Personal informa

From: WILLNER Samantha [<mailto:Samantha.Willner@des.qld.gov.au>]

Sent: Monday, 13 August 2018 3:29 PM

To: Personal in @iinet.net.au

Cc: Corro QPWS gbrmci CIR

Subject: Drones on K'gari (Fraser Island)

Good Afternoon:) Personal in

In regards to operating a drone on K'gari (Fraser Island), here's a few tips you need to know:

- If you are using the footage for anything other than your personal use you will be required to obtain a permit through the following links below;
 - visitor management team at: sunshinefraserpermits@npsr.qld.gov.au or visit: <http://www.business.qld.gov.au/industry/tourism/parks-recreation-forests>
- Please note that the Eastern beach is currently used for Air Fraser aircrafts landing and take-off purposes, so you wouldn't be able to fly in these areas.

The following information has been taken from the Casa website and can be used in direct relation to flying over K'gari. If you need further relating to drone use generally, it can be found on the CASA web site at <https://www.casa.gov.au/aircraft/landing-page/flying-drones-australia>

Flying with control - rules for flying drones and model aircraft safely

When flying drones or model aircraft recreationally, you need to follow these simple drone rules to keep everyone safe.

- You should only fly in visual line-of-sight, in day visual meteorological conditions (VMC). What does that mean?
 - No night flying (generally).
 - No flying in or through cloud or fog.
 - Be able to see the aircraft with your own eyes (rather than through first-person-view [FPV, binoculars, telescopes]) at all times, (unless you operate under the procedures of an approved model flying association. Contact the [MAAA](#) for more information about flying FPV).
- You must not fly closer than 30 metres to vehicles, boats, buildings or people.
- You must not fly over populous areas such as beaches, heavily populated parks, or sports ovals while they are in use.
- In controlled airspace, which covers most Australian cities, you must not fly higher than 120 metres (400 feet) above the ground.
- You must not fly in a way that creates a hazard to other aircraft, so you should keep at least 5.5 km away from airfields, aerodromes and helicopter landing sites.
- You must not fly your RPA in or over prohibited / restricted area, unless you have the permission of the authority controlling the area.
 - In restricted airspace, aircraft movements are reduced to those with certain specified permissions. Examples of restricted airspace include airspace around military installations or military controlled aerodromes, over Sydney Harbour, high-density flying operations or at an air show or other large public event. Restricted airspace may also be imposed by police for safety or security reasons near bushfires or major crime scenes. It is illegal to fly your RPA in these areas without permission.

Operations within the 3nm (5.5km) radius of an aerodrome or helicopter landing site are possible and lawful providing you comply with the Standard Operating Conditions listed above and ensure that you do not operate:

- on the approach and departure path, or
- within the movement area, or
- create a hazard to aircraft that may be using those areas.

If you need any further information please feel free to ask.

Kind Regards,



Samantha Willner
Ranger – Public Contact
K'Gari, Dulingbura (Fraser Island South)
Department of Environment and Science
(07) 4127 9128
PMB 10, MS 2173, Rainbow Beach Q. 4581

I acknowledge that Aboriginal Peoples and Torres Strait Islander Peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community.
I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.



From: QPWS
Sent: Monday, 13 August 2018 8:30 AM
To: QPWS
Subject: General question

Speaking with a ranger at Fraser Island yesterday he told me that the whole eastern beach is a no fly zone for drones. CASA and info from Kingfisher Resort say otherwise. There are some restrictions around the temp landing zones. Please clarify.

Customer Name: [REDACTED] p4(6) Personal information

Email: [REDACTED] @inet.net.au

Phone Number: [REDACTED] p4(6) Personal information

Operating System: Microsoft Windows NT 6.2.9200.0

Browser: Chrome68

Version: 68.0

The information in this email together with any attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. There is no waiver of any confidentiality/privilege by your inadvertent receipt of this material. Any form of review, disclosure, modification, distribution and/or publication of this email message is prohibited, unless as a necessary part of Departmental business.

If you have received this message in error, you are asked to inform the sender as quickly as possible and delete this message and any copies of this message from your computer and/or your computer system network.

Date : 27/10/2017 1:54:35 PM

From : "TURNER Gennieve"

To : "CAMERON Rob"

Cc : "Coastal Islands Permits"

Subject : FW: DRONES; CASA information and links - FURTHER TO MY EARLIER EMAIL.

Attachment : image001.png;image003.png;image005.png;image006.png;

FYI only.

From: TURNER Gennieve

Sent: Thursday, 23 February 2017 11:13 AM

To: BRECKNELL Teresa <Teresa.Brecknell@npsr.qld.gov.au>

Cc: LAWTON Colin <Colin.Lawton@npsr.qld.gov.au>; WRIGHT Michelle <Michelle.Wright@npsr.qld.gov.au>; D'SOUZA Joel <Joel.Dsouza@npsr.qld.gov.au>; MIDDIS Mac <Mac.Middis@npsr.qld.gov.au>

Subject: DRONES; CASA information and links - FURTHER TO MY EARLIER EMAIL.

Hi all,

As per my previous email regarding drones. Following is some information and links from the CASA website which may assist staff when dealing with enquiries, safety and privacy concerns in the field.

Civil Aviation Safety Authority (CASA)

The Civil Aviation Safety Authority (CASA) is responsible for regulating and overseeing the safe operations of both remotely piloted aircraft and model aircraft - commonly referred to as drones. Information about drone rules in Australia is available on their website. Operators should only fly a model aircraft in visual line-of-sight, in day visual meteorological conditions (VMC). What does that mean?

- No night flying (generally).
- No flying in or through cloud or fog, and you must.
- Be able to see the aircraft with your own eyes (rather than through first-person-view [FPV]) at all times.
- Operators must not fly a model aircraft closer than 30 metres to vehicles, boats, buildings or people.
- Operators must not fly a model aircraft over populous areas such as beaches, heavily populated parks, or sports ovals while they are in use.
- In controlled airspace, which covers most Australian cities, you must not fly higher than 120 metres (400 feet) above the ground.
- You must not fly in a way that creates a hazard to other aircraft, so operators should keep at least 5.5 km away from airfields, aerodromes and helicopter landing sites.

https://www.casa.gov.au/operations/standard-page/remotely-piloted-aircraft-rpa?WCMS%3ASTANDARD%3A%3Apc=PC_100374

Safety reporting – complaint form

Complete the on-line unsafe drone operations complaint form to notify CASA of remotely piloted aircraft (RPA) operations you believe may have breached civil aviation safety regulations. Please note, safety breaches can only be investigated where there is sufficient evidence, such as photos or video recordings of the breach and the person controlling the drone/RPA at the time.

Privacy concerns and CASA's role

RPAs can have real privacy impacts. However, CASA's role is restricted to aviation safety - privacy is not in its remit.

As stated by the Office of the Australian Information Commissioner, the *Privacy Act 1988* generally requires that government agencies and private sector organisations comply with privacy obligations. The Privacy Act does not regulate individual operators of drones, or small business operators.

Some State and Territory anti-stalking laws may apply to the operation of surveillance drones in some circumstances.

If you are concerned about drones and your privacy, you can contact the Office of the Australian Information Commissioner for more information or telephone 1300 363 992.



Gennieve Turner
Ranger – Visitor Management
Technical Support
Coastal and Island Parks Region | Queensland Parks and Wildlife
Department of National Parks, Sport and Racing

P 07 5470 3404
Email: gennieve.turner@npsr.qld.gov.au

From: BRECKNELL Teresa

Sent: Tuesday, 21 February 2017 11:59 AM

To: TURNER Gennieve

Cc: LAWTON Colin; WRIGHT Michelle; D'SOUZA Joel; MIDDIS Mac

Subject: RE: Use of a 800 gram drone in your national park at Teewah beach next week

Hi Gennieve,

Creating more work for someone, however it could be worth addressing a policy for drone use in QPWS estate particularly for the higher visited areas or higher value areas. I had a drone the other day when I was conducting an interview with a visitor, circle us and hover within a few metres. (which is against CASA laws, however I did not know where it came from) Also, we are seeing more and more of them on the beach and may be worth looking at drafting something.

Any thoughts,

Thanks,



Teresa Brecknell

2IC Ranger

Queensland Parks and Wildlife Service

Department of National Parks, Sport and Racing
Coastal and Island Parks Region

P (07) 54869106 M (6) Personal info
PO Box 44 Rainbow Beach 4581

From: TURNER Gennieve

Sent: Friday, 17 February 2017 11:37 AM

To: (6) Personal info@hotmail.com

Cc: TURNER Gennieve

Subject: Use of a 800 gram drone in your national park at Teewah beach next week

Hi (6) Personal in

Thank you for your enquiry regarding the recreational use of a 800 gram drone in the Cooloola Recreation Area, Teewah Beach. As per our telephone discussion, there is currently no QPWS policy for the recreational use of drones or more technically correct Remote Piloted Aircraft (RPA's). The use of drones is governed by the Civil Aviation Safety Authority (CASA), as outlined in Part 101 of the Civil Aviation Safety Regulations (CASR).

As discussed, due to the areas popularity and high usage by recreational four-wheel drivers and campers undertaking beach activities there may be potential privacy and safety issues when using your drone along Teewah Beach. If you intend to use your drone for recreational purposes in the Cooloola Recreation Area, ensure that you abide by all CASA Regulations and safety laws for drones / remotely piloted aircraft (RPA), as defined in the CASA regulations.

Detailed information can be found in the following link: https://www.casa.gov.au/operations/standard-page/remotely-piloted-aircraft-rpa?WCMS%3ASTANDARD%3A%3Apc=PC_100374

Kind regards,
Gennieve



Gennieve Turner

Ranger – Visitor Management

Technical Support

Coastal and Island Parks Region | Queensland Parks and Wildlife
Department of National Parks, Sport and Racing

P 07 5470 3404
Email: gennieve.turner@npsr.qld.gov.au

-----Original Message-----

From: sch4p4(6) Personal information@hotmail.com]

Sent: Monday, 13 February 2017 10:08 PM

To: QPWS <ParkEnquiries@npsr.qld.gov.au>

Subject: Drone use at Teewah Beach, Cooloola Recreation Area

Hi,

I am just enquiring to check if it is OK to use a small 800 gram drone in your national park at Teewah beach next week. It is for personal use to film the scenery and our camping holiday. Of course we are fully responsible to follow the CASA drone use rules and guidelines so at no time will it be near other people or vehicles etc.

Please let me know if you need anymore info.

Regards

sch4p4(6) Personal informatio

Sent from my iPad

Date : 29/10/2019 3:40:02 PM
From : "BURNHAM Mark"
To : "MACDONALD Stirling"
Subject : RPAs (drone) information and assessment
Attachment : QUOTATION - 422328 from Garricks Camera House
(002).pdf;image001.png;image003.png;image002.png;image004.png;

Recommendations:

We proceed with the purchase of the

DJI Mavic 2 Pro Enterprise \$4,499.00
Dual w/ Visible & Thermal Cameras



Information from Greg Cater (South Western region) regarding justification of this model for purchase

These include:

- Dual stabilised camera housing a high definition visible light and a Forward Looking Infrared imaging sensor. To have this capability prior to this machine coming on the market the cost would have been around \$10,000.
 - Provides a thermal image in low light to identify fire hot spots.
 - Allows for area measurement of lowest and highest temperatures specified by the pilot.
 - Spot meter for accurate temperature readings.
 - Isotherm sensor to allow the pilot to designate specific temperatures e.g. animals, people.
- Omnidirectional Obstacle Sensing - Left/right, up/down and forward/backward (the Phantom 4 does not have an upward sensor)
 - Safer for flying in forested areas.
- Self-heating batteries – warm batteries maintain maximum flight time.
 - Critical for cold weather operations i.e. planned burns in winter.
- GPS timestamping – encodes time, date and location on every recorded image.
- Kit also includes
 - Strobe beacon – for maintaining line of sight with the aircraft in low light.
 - Speaker – programmable with up to 10 custom voice messages.
 - Spotlight – dual spotlight ideal for search and rescue or fireline operations.
 - Two extra batteries, car charger and charging hub
 - Spare propellers
 - Hard case

Unlike the Phantom there will be no need to purchase a dedicated iPad as any iPhone can be connected to the controller. I understand most Senior Rangers and RIC's now have iPhones.

This is the latest technology available in the commercial drone market in the sub \$10,000 category.

Notes:

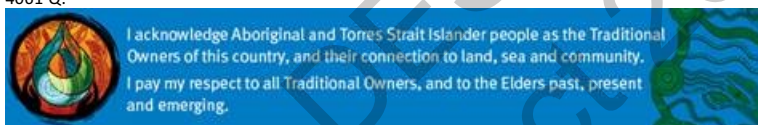


Mark Burnham
Senior Conservation Officer- Technical Support
Coastal and Islands Region / QPWS & Partnerships
Department of Environment and Science

P 07 3164 3623

M (6) Personal info

60 Mt Nebo Rd The Gap
4061 Q.



QUOTATION

Sold To:

Greg Carter
Dept. Environment & Science
QLD Parks & Wildlife
TOOWOOMBA 4350

Quotation No	422328
Quotation Date	12-APR-19
Valid Until	12-MAY-19
Customer No	4p4(6) Personal informa
Customer Ref/PO	
Staff Member	6) Personal info

Stock Code	Item Description	Qty	Item Price	Line Total
DJIMAVIC2ENTDUAL	DJI Mavic 2 Pro Enterprise Dual w/ Visible & Thermal Cameras	1		
DJIMAVIC2ENTPT1	DJI Mavic 2 Enterprise Edition Fly More Kit	1		
SDSQXAF-064G-GN6	SanDisk Extreme microSDXC 64GB 100MB/s UHS-I A1 V30 Memory Card <i>Drone kit Contents:</i> 1 x Aircraft (DJI Mavic 2 Enterprise Dual) 1 x Remote Controller 1 x Battery Charger 1 x Power Cable 3 x Propeller (pair) 1 x Spare Control Stick (pair) 1 x Communication Cable-USB3.0 Type-C 1 x USB Adapter 1 x Extended Port Cover 1 x Speaker 1 x Spotlight 1 x Beacon 1 x RC Cable (Lightening connector, Slider Included) 1 x RC Cable (Standard Micro USB, Slider included) 1 x RC Cable (USB-C connector, Slider included) 1 x Hard Case ***** ENTERPRISE FLY MORE KIT 2 x Intelligent Self-Heating Flight Battery for Mavic 2 Enterprise Car Charger for Mavic 2 Pro/Zoom/Enterprise Batteries Battery Charging Hub for Mavic 2 Pro/Zoom/Enterprise Batteries Battery to Power Bank Adapter for Mavic 2 Pro/Zoom/Enterprise Batteries 2 x Low-Noise Propellers for Mavic 2 Pro/Zoom/Enterprise (One Pair) Shoulder Bag for Mavic 2 Pro/Zoom/Enterprise	1		



Date : 18/11/2019 12:09:09 PM

From : "MOORE Nicole"

To : "CUBIS Mick" , "CODY Mark" , "MACDONALD Stirling" , "BELCHER Ross" , "DARGUSCH Marc" , "DAVIES Matt" , "SEELEITHER Jamie" , "MATTHEWS Galen" , "BLACKWELL Ben" , "BARRACLOUGH Emma" , "CLELLAND Rhonda" , "BURNHAM Mark"

Cc : "MOORE Nicole"

Subject : *For your review* Draft Minutes - RLT October 19

Attachment : Draft Minutes RLT Oct 19.docx;image001.png;image002.png;image004.png;

Hi All

Draft minutes from the October RLT are attached for your review. Please let me know if anything needs to be changed by [COB Wed, 20 Nov 19](#).

Please also let me know if you have any specific items to be added to the next Agenda.

Action items are listed below – FYI and Action as necessary.

Action Items

Item #	Action	Responsible
1. Capital & Maintenance	<ul style="list-style-type: none">Seek advice from Wayne (Assets) regarding budget sources to fund maintenance costs associated with Harry's Hut	M Dargush (A/PR, GSA)
2. Regional Indigenous Engagement	<ul style="list-style-type: none">Follow up targeted Native Title training for CIR with Bruce Rampton	Matt Davies (A/APR, Tech Support)
3. General Business Issues	<u>Drone Management</u> <ul style="list-style-type: none">Purchase 1 x drone for Bribie IslandInformation from Greg Carter to be passed onto Manager MBA on Maverick Duel 2.	R Belcher (A/Manager MBA) M Burnham (Tech Support)
	<ul style="list-style-type: none">Regional audit to be conducted to ensure that CIR are currently meeting legislative requirements	M Burnham (Tech Support)
	<u>Enhanced Fire Management</u> <ul style="list-style-type: none">Project costings to be circulated after next meeting	S MacDonald (A/PR, Tech Support)
	<ul style="list-style-type: none">Tech Support (Ops) to be consulted to develop Enhanced Fire Management projects	S MacDonald (A/PR, Tech Support)

Next meeting

Date	Wednesday, 27 November 2019
Time	10.00 – 3.00
Location	Manly Conference Room

Thanks,



Nicole Moore
Regional Support Officer, Coastal and Islands Region
GBRMC | QPWS & Partnerships
Department of Environment and Science

P: 07 3101 2093 M: 6) Personal info
34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
Nicole.moore@des.qld.gov.au

CIR Regional Leadership Team

Meeting minutes

Details

Chair	Stirling MacDonald (A/PR TS)
Date	Wednesday, 30 October 2019
Timing	10.30am – 3.00pm
Location	Room 1:10, Level 1 Maroochydore Office

Present
Mark Cody (A/RD); Marc Dargusch (A/PR), Ross Belcher (A/M); Matt Davies (A/APR), Jamie Seeleither (A/PR SP); Galen Mathews (SPO); Ben Blackwell (SPO); Emma Barraclough (A/SR); Rhonda Clelland (SPO); Mark Burnham; Nicole Moore (RSO)

Apologies

NIL

Items

Item #	Discussion
1. RD Update	s.73
2. WHS/Training/HR	

3. Budget Overview

-
-
-
-

s.73

Capital

4. Capital &
Maintenance

s.73

Maintenance

5. Vehicle/Vessels

s.73

6. Regional Indigenous
Engagement

-
-
-
-
-
-

[Redacted]

s.73

Drone Management

- Qld leading the way in drone usage. QPWS&P using drones for a number of years. 54 pilots across State with 34 drones. Information can be costly to process. Brett # (TBC) – Chief Pilot and manages drone fleet.. Approx \$2k per licence. Face to Face 4/5 course required. All information available online (CASA requirements, flight plans, maintenance schedules, operational policy and procedures). Mark Burnham expects policy to be implemented very soon. Storage of footage generates large files which need specific software. Greg Carter has offered to show CIR Mavrick Duel 2. Suggested that a regional champion trains others. Propose to have 2 in region. 1 currently at Cooloola. Purchase another one for Bribie (pending budget). Costs approx. \$4.5k drone and \$800 for flight gear. QYAC mentioned policy on drone management at recent research forum – need to be mindful within Quandamooka country. Ben waiting on a copy of QYAC policy. Need to know legislative requirements as some CIR staff are currently using drones.

CIR Enhanced Fire Management

- Project costings for 19/20 presented. Must contribute to enhanced ability to prevent fire/wildfire mitigation. Full budget of \$15M over 5 years. \$2M thereafter. New fire units to be rolled out. CIR allocation increased from \$30K to \$80K. Meeting scheduled for end of November – work out future. Examples for funding include Annual fire refresher, First Nation interaction, Drone Purchase, IC trailer.

Sharepoint

[Redacted]

s.73

CTO Communication Protocol

[Redacted]

s.73

Vehicle recognition

[Redacted]

s.73

7. General Business Issues

Action Items

Item #	Action	Responsible
1. Capital & Maintenance	• [REDACTED]	
2. Regional Indigenous Engagement	• [REDACTED]	
3. General Business Issues	<p><u>Drone Management</u></p> <ul style="list-style-type: none"> • Purchase 1 x drone for Bribie Island • Information from Greg Carter to be passed onto Manager MBA on Maverick Duel 2. • Regional audit to be conducted to ensure that CIR are currently meeting legislative requirements <p><u>Enhanced Fire Management</u></p> <ul style="list-style-type: none"> • Project costings to be circulated after next meeting • Tech Support (Ops) to be consulted to develop Enhanced Fire Management projects 	<p>R Belcher (A/Manager MBA)</p> <p>M Burnham (Tech Support)</p> <p>M Burnham (Tech Support)</p> <p>S MacDonald (A/PR, Tech Support)</p> <p>S MacDonald (A/PR, Tech Support)</p>

Next meeting

Date	Wednesday, 27 November 2019
Time	10.00 – 3.00
Location	Manly Conference Room

Action Items

Item #	Action	Responsible
1. Capital & Maintenance	<ul style="list-style-type: none">[Redacted]	
2. Regional Indigenous Engagement	<ul style="list-style-type: none">[Redacted]	
3. General Business Issues	<div>Drone Management<ul style="list-style-type: none">Purchase 1 x drone for Briбие IslandInformation from Greg Carter to be passed onto Manager MBA on Maverick Duel 2.Regional audit to be conducted to ensure that CIR are currently meeting legislative requirements</div> <div>Enhanced Fire Management<ul style="list-style-type: none">Project costings to be circulated after next meetingTech Support (Ops) to be consulted to develop Enhanced Fire Management projects</div>	<div>R Belcher (A/Manager MBA)</div> <div>M Burnham (Tech Support)</div> <div>M Burnham (Tech Support)</div> <div>S MacDonald (A/PR, Tech Support)</div> <div>S MacDonald (A/PR, Tech Support)</div>

Next meeting

Date	Wednesday, 27 November 2019
Time	10.00 – 3.00
Location	Manly Conference Room

Hi Elle,

This has been approved by Mark Cody for TS.

Please note that there be some sensitive information included in our submission including the email titled ' For your review Draft – Minutes October 19" dated 18/11/19 that was sent to me by Mark Burnham that includes the Meeting Minutes of the RLT dated Wed 30 Oct 2019 (attached) .

Thanks,

K



Keshini Canagasuriam
Regional Administration Officer
Coastal and Islands Region | QPWS & Partnerships
Department of Environment and Science

P (07) 3164 3609
60 Mt Nebo Road, The Gap QLD 4061
www.des.qld.gov.au

Flying drones in protected areas for recreational purposes

Currently, there is no requirement to obtain a permit to fly a drone in a protected area for recreational purposes, provided—

- the drone is under 2kg;
- the operator does not fly the drone within 30 metres of people (excluding the operator/s);
- the drone is used in a way that minimises disturbance to people in the area;
- the drone use is not for commercial benefit;
- the drone use is consistent with the requirements set out by CASA (see link below); and
- there is no regulatory notice at the park prohibiting the operation of a drone at that location without an approval.

Civil Aviation Safety Authority (CASA) requirements

When operating in protected areas, drone operators must comply with all CASA requirements.

Please refer to the CASA website for further information via this link –

<https://www.casa.gov.au/aircraft/landing-page/flying-drones-australia>.

Minimum flying height restrictions over certain national parks

Some protected areas have specific ‘minimum height’ restrictions. Operators must not fly a drone below the minimum height (1500 feet or about 450 metres) over the national parks listed below.

This applies to all RPA and to all RPA weight categories, and to commercial and non-commercial use.

- Capricornia Cays National Park (scientific), specifically—
 - East Fairfax Island
 - East Hoskyn Island
 - West Fairfax Island
 - West Hoskyn Island
 - Wreck Island
- Capricornia Cays National Park, specifically—
 - Erskine Island
 - Heron Island
 - Lady Musgrave Island
 - Masthead Island
 - North West Island
 - Tyron Island
 - Wilson Island
- Carnarvon National Park
- Currawinya National Park
- Hinchinbrook Island National Park

Note – if the use is for commercial purposes a permit will be required – contact the Assessments and Approvals Team via parkaccess@des.qld.gov.au.

In addition to CASA requirements to maintain necessary distances from people, the Department of Environment and Science requests that you operate your drone in a manner which does not cause a nuisance to other park users or interfere with wildlife.



Minister for Environment and the Great Barrier Reef,
Minister for Science and Minister for the Arts

Our Ref: CTS 25887/19

1 William Street Brisbane Qld 4000
GPO Box 5078 Brisbane
Queensland 4001 Australia
Telephone +61 7 3719 7140
Email environment@ministerial.qld.gov.au

28 OCT 2019

Ms Simone Wilson MP
Member for Pumicestone
Unit 1
43 Benabrow Avenue
BELLARA QLD 4507

Dear Ms Wilson

Simone,

Thank you for your email of 24 September 2019 on behalf of your constituent, Mr Ian Grime, regarding access to public land to fly model aircraft.

Our Queensland national parks uphold the management principle of protecting the natural values for which the parks are created. Bribie Island National Park, which also includes Lot 4 on AP22462, is a popular visitor site where people can enjoy the natural landscape, wildlife and tranquillity. Unfortunately flying model aircraft is inconsistent with these management principles and can interfere with the natural setting and experiences provided.

Hornsby Road itself is a popular site for walking and bike riding where visitors, using the Moreton Bay Regional Council (MBRC) maintained road, can enjoy the natural landscapes adjacent to the road. I am advised that the Department of Environment and Science cannot support dedicated areas for model plane flying that have the potential to impact on recreational and management users.

Sporting ovals or golf courses may be better suited to the activity. I would encourage your constituent to contact MBRC via website www.moretonbay.qld.gov.au/Contact or on telephone (07) 3205 0555 to discuss these options.

I hope this information is of assistance when replying to your constituent. If you require any further information, please contact my Chief of Staff, Ms Hannah Jackson, on telephone (07) 3719 7140 or by email at hannah.jackson@ministerial.qld.gov.au.

Yours sincerely

Leeanne Enoch MP
Minister for Environment and the Great Barrier Reef,
Minister for Science and Minister for the Arts

NIVALA Anneli

From: NIVALA Anneli
Sent: Tuesday, 5 November 2019 11:02 AM
To: LESSONS Jay; BELCHER Ross; MCLARTY Brendan; BULLEY Graeme
Cc: KARKLIS Anthony; DOWLING Roland; CHRISTENSEN Terry
Subject: Action: Management of Drones - Due to Corro ADG by cob 11 Nov 2019



Good morning all,

Have any of your teams acquired drones since the last request in September?

If so I will quiz you for more info to input into the register

Kind regards,

Anneli Nivala

Moreton Bay Area Administration Officer
Coastal and Islands Region

QPWS and Partnerships | Dept. of Environment and Science
07 3101 2078 | PO Box 5178 Manly QLD 4179

34 Trafalgar Street Manly QLD 4179

<http://www.des.qld.gov.au/>

From: Corro QPWS gbrmci CIR <QPWSgbrmciCIR.Corro@des.qld.gov.au>
Sent: Monday, 4 November 2019 12:28 PM
To: EMBREY Teena; CANAGASURIAM Keshini; NIVALA Anneli
Cc: Corro QPWS gbrmci CIR
Subject: FW: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi Folks,

Please let me know if I am forwarding to the correct parties.

Hi teams

ACTION: Please provide/update information in all worksheets (use of drones in des, definitions, drones register, drone operator) in the DES drone register located [here](#). Provide nil response or email confirmation to Corro CIR when the task is completed

DUE DATE: To Corro CIR by 10 am Monday 11 November 2019

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Kind regards,
Elle



Elle Hart

A/Regional Administration Officer, Coastal and Islands Region

GBRMCI | QPWS & Partnerships

Department of Environment and Science

P: 07 3101 2058

34 Trafalgar Street, Manly

PO Box 5178, Manly Qld 4179

Elle.Hart@des.qld.gov.au

From: Corro DES QPWS GBRMCI

Sent: Monday, 4 November 2019 12:00 PM

To: Corro DES QPWS GBRMCI; Corro QPWS gbrmci CIR; Corro QPWS gbrmci GBR MPR

Subject: FW: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi teams

ACTION: Please provide/update information in all worksheets (use of drones in des, definitions, drones register, drone operator) in the DES drone register located [here](#). Provide nil response or email confirmation to Corro GBRMCI when the task is completed

DUE DATE: To Corro GBRMCI by 12 noon Monday 11 November 2019

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Cheers

Jo

Jo Gruer

Principal Advisor – GBR, Marine Parks, Coastal and Islands

Management and Operations | QPWS & Partnerships

Department of Environment and Science, P.07 3199 7521

From: ABURN Mark <Mark.Aburn@des.qld.gov.au>

Sent: Friday, 1 November 2019 10:07 AM

To: Corro DES QPWS Park Services; Corro DES QPWS GBRMCI; Corro DES QPWS Southern; Corro DES QPWS Northern; Corro DES QPWS WTS

Cc: Corro DES QPWS ADG

Subject: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi all,

The request below was originally sent out when the recent bushfire situation was ramping up, so obviously we could only devote a certain amount of attention to this request.

Could I please ask that your teams re-visit the spreadsheet and update any missing data (particularly barcode and asset numbers), including entering in the data of any new drones that have been purchased since September 2019. Updates should be done via the link below.

Management of drones

ACTION: Further to the email requests below, could you please submit your response ensuring the appropriate information is entered into **all of the tabs** in the SharePoint document. [Please see link here to a departmental register of Drones, pilots and Divisional uses.](#)

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Please have your ED approvals to Corro ADG by cob Monday 11th of November 2019.

Kind regards,



Mark Aburn
Principal Advisor
Office of the Assistant Director-General
Management and Operations | QPWS & Partnerships
Department of Environment and Science

P 07 3199 7526
Level 5, 400 George Street Brisbane QLD 4000
PO Box 15187 CITY EAST QLD 4000

NIVALA Anneli

Subject: Aircraft Management Strategy meeting
Location: Teleconference

Start: Thu 18/07/2019 10:30 AM
End: Thu 18/07/2019 11:30 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: SEELEITHER Jamie
Required Attendees: MACDONALD Stirling; DARGUSCH Marc; BELCHER Ross; YETMAN Brendon; HARVEY Peter; KERRY Renae; BARRACLOUGH Emma; DAVIES Matt; LAWTON Colin

Update for this meeting plus a few attachments that we will refer to:

Hello All

Details of Dial in:

Dial Optus Conferencing on: 0731171092

Conference Code: 7293188936

Agenda

1. Introduction to issue.
2. Existing Situation – Current Operators/ management requirements
3. Applications – historic
 - Current
4. BAC view/ involvement in a process.
5. Previous options considered (review Powerpoint)
6. Routes /frequencies (if any)
7. Where to from here – seek formal BAC written advice as part of Management Planning?
 - reform working group (with range of stakeholders including Tourism / CASA)???

Regards

Jamie Seeleither

A/ Assistant Principal Ranger – Technical Support



Queensland
Government

Coastal and Islands Region / QPWS & Partnerships

Department of Environment and Science

P (07) 54596130 | M p4(6) Personal inform | E: jamie.seeleither@npsr.qld.gov.au

12 First Avenue Maroochydore QLD 4558 |

From: BARKER Tim
Sent: Monday, 21 October 2019 9:01 AM
To: All DES Staff
Subject: DES Building Digital Confidence Seminar - Look , up in the Sky ... It's a Drone !
Attachments: Digital Seminar Series.ics

Importance: High



DES Building Digital Confidence Seminar

Look , up in the Sky. It's a Bird , It's a plane ... no It's a DES Drone !

A lot more than just a fun toy, drones have a variety of potential applications for applied research, surveillance, imagery collection, asset inspection, compliance investigation and product delivery that could offer significant business efficiencies as well as improved management of health and safety risks across many DES business operations.

But what is DES doing about drones? Paul Lawrence, Executive Director of Science Delivery and Knowledge, will provide an update on what is happening in the DES Drones Working Group and all drone-related activities across the department. The use of drones by DES puts into action a number of our *Digital Ambitions* including *Embracing Change*, *Seamless Business* and *Customer Focus* which will be showcased at the seminar.

The Drones Working Group is responsible for guiding the continued adoption of drones for DES, as Queensland strives to become a world leader in drone technology and application. Seminar details (please note the time change for this seminar series):

- **Friday, 1st November 2019**
- **11:00am-12:00pm**
- Wet Tropics and Gondwana Rainforest rooms, Level 3, 400 George Street, Brisbane.
- Click on the attachment to save a meeting reminder for this event to your calendar.

For those outside of 400 George Street, [Join Microsoft Teams Meeting](#) using the Teams app or join on the web. The seminar will also be recorded and made available after the event.

This presentation is part of an ongoing seminar series to help **Build Digital Confidence** and skills in staff to thrive in a changing world – one of the ambitions of *Our Digital Future*. Please follow this [link](#) to view the previous seminar about the **Digital State of the Environment Report**.



For more information regarding this event, future events or to suggest topics or speakers for the series, please contact ChiefDigitalOfficer@des.qld.gov.au. Ta.

Tim Barker
Chief Digital Officer

Tim Barker
Chief Digital Officer
Digital & Information Services Branch
Science and Technology Division
Department of Environment and Science

P 3338 9316 M (6) Personal information tim.barker@des.qld.gov.au
Level 3, 400 George St, Brisbane QLD 4000 GPO Box 2454, Brisbane QLD 4001



From: BARKER Tim
Sent: Friday, 15 November 2019 10:51 AM
To: All DES Staff
Subject: DES Building Digital Confidence Seminar - Use of Drones in Government
Attachments: Digital Confidence Seminar - Drones .ics



DES Building Digital Confidence Seminar

Use of Drones in Government – NT and USA Insights

Drones are being rapidly adopted by government agencies around the world and there is the potential for some great learnings when governments are willing to share their journey through the drone's airspace.

We are very lucky to have Dr Renee Bartolo of the Northern Territory's Department of Environment and Energy speak at the next Building Digital Confidence Seminar. Dr Bartolo is the NT's Chief Pilot and has recently returned from a trip to the USA, learning about using drones in a government setting.

Seminar details:

- **Monday 18 November 2019**
- **11:00am-11:30am**
- Collaboration Room 31.09, Level 31, 400 George Street, Brisbane.
- Click on the attachment to save a meeting reminder for this event to your calendar.

For those outside of 400 George Street, [Join Microsoft Teams Meeting](#) using the Teams app or join on the web. There will be limited seating available on the day. The seminar will also be recorded and made available after the event.

This presentation is part of an ongoing seminar series to help **Build Digital Confidence** and skills in staff to thrive in a changing world – one of the ambitions of *Our Digital Future*.

For more information regarding this event, future events or to suggest topics or speakers for the series, please contact ChiefDigitalOfficer@des.qld.gov.au. Ta.

Tim Barker
Chief Digital Officer

From: [sch4p4(6) Personal information]@dronethat.com.au>
Sent: Wednesday, 15 May 2019 7:32 AM
To: SOWERBY Jody
Subject: Drone That contact details.
Attachments: Untitled 1.pdf; ATT00001.txt

Hi Jody,

Thanks for your time on the phone yesterday.

Attached is a PDF (Apologies for the quality of the PDF) with a brief outline of what our strengths are.

The equipment I use is a P30 Xaircraft. It has a swath width of 2.5m and speeds of up to 8m/s depending on spraying volume.

It's delivery mechanism is a CDA (controlled disc applicator) which allows multiple settings when it comes to droplet size.

Another feature is, the CDAs are placed immediately below the props which push down the droplets reducing the risk of wind drift and increasing the coverage of the plant by an additional 60% (over high water volume rates) as it is able to cover below the leaf, making the application more effective and reducing runoff to almost non existent.

If you have any questions please let me know.

Best regards

[sch4p4(6) Personal information]

Chief Remote Pilot
Drone That Pty Ltd

[sch4p4(6) Personal information]



Capability Statement



The past.

Until the advent of Unmanned Aerial Vehicles (UAVs), aerial applications were expensive, with their large rigs, infrastructure needs and large fuel needs.

They could only be afforded by large corporations, or when the costs of non-action was so high that they started looking affordable.

Things have changed now that UAVs are available. We put within your reach aerial applications, helping reduce health risks, avoid equipment damage, get fields ready for planting or improve your land carrying capacity.



What we do.

Improve currently established aerial chemical spraying solutions through the consistent use of UAVs improving ontarget

spraying through our low height application, RTK positioning (25mm accuracy), reducing the use of chemicals through better product distribution and increasing productivity (too wet? too steep? too rocky? Not a problem!) We can do it more efficiently as effectively and less expensive.



How do we do it differently?

- We get right up to the target area before we get in the air.
- We can swarm using upto 4 UAVs per pilot, saving you \$ in labour.
- We use Controlled Disk Applicators (CDA) for a uniform chemical application on each target, improving translocation.
- Continuously apply the same consistent dosage and droplet size over our whole mission.
- Keep our conversation going with clients to monitor the long term performance of our applications, creating a continuous improvement environment.
- Keep exact (ml accuracy) records and outcomes of trials.

All of the above allow Drone That Pty Ltd to identify the most cost effective chemical rates of applications saving you \$ and guaranteeing the desired outcome, be that:

Spraying infrastructure with no off-target spraying.

Spraying bodies of water with very limited environmental impact.

Reduce impact on pasture allowing them to bounce back after targeting weeds.

Obtain a total kill with reduced chemicals use.



Canal and trail 1 week after aerial application.

How we do it?

We spray at a rate of between 30 and 50 litres per ha (depending on vegetation density) with tested concentrations which achieve the objectives of the mission and a droplet size which improves translocation and minimises winddrift potential.

Our propellers are immediately under the CDA applicator, the propwash helps improve coverage (60% more coverage as it applies behind the leaves as well) getting deep into thick weed canopies, and therefore increasing effectiveness.



Want to find out more? Below some independent reviews on traditional aerial applications:

- <http://forestry.org.au/kcfinder/upload/files/Aerial%20Spraying%20of%20Chemicals%20-%20Consultation%20Paper%20-%20IFA%20submission.pdf>
- <https://www.mla.com.au/download/finalreports?itemId=1057>

Imagine what Drone That, with its better accuracy and improved coverage will achieve.

Vegetation Management Specifications:

Productivity:

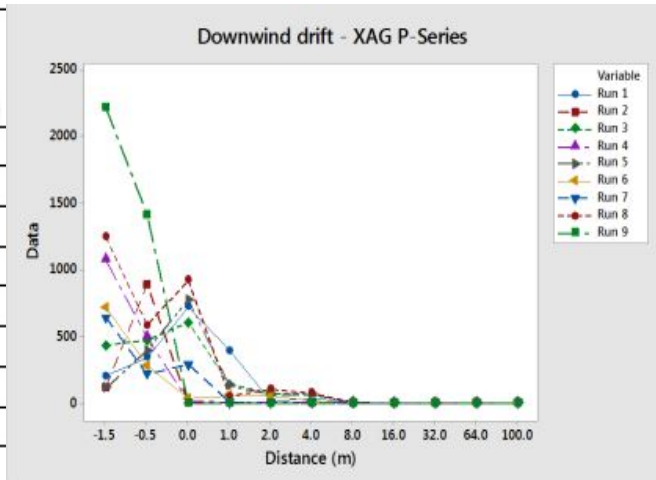
Drone That P30 UAV productivity table (ha/hr)		Litres per ha						
		96	64	48	29	25	22	20
Speed (m/s)	1.00	0.9						
	1.50		1.35					
	2.00			1.8				
	2.50				2.25			
	3.00					2.7		
	3.50						3.15	
	4.00							3.6

Notes:

- 1) Area productivity estimated at the optimum effective swath of 2.5m, this achieves a 20cm overlap on each edge
- 2) Productivity rates are at the field edge. As the UAV progresses through the field productivity decreases progressively as the distance to travel to the drop-off point increases
- 3) Objects on the field with >3.5m above the average target vegetation height will require obstacle avoidance moves which will reduce productivity
- 4) Speeds above 2.5m/s are only for illustration purposes for safety reasons
- 5) At speeds below 2m/s 4 pumps can be used increasing the spraying volume, which is reflected on the table

Wind drift profile:

Run No.	Drop size (um)	Flying Ht (m)	Flying speed (m/s)	Carrier volume rate (L/ha)
1	550	2.0	2.0	38.8
2	550	1.0	2.0	38.8
3	285	2.0	2.0	38.8
4	285	1.0	2.0	38.8
5	200	2.0	2.0	38.8
6	200	1.0	2.0	38.8
7	285	2.0	4.0	19.4
8	285	2.0	2.0	77.8
9	550	2.0	2.0	77.8



From: [sch4p4(6) Personal information]@frasercoast.qld.gov.au>
Sent: Wednesday, 29 May 2019 9:17 AM
To: DL-LDMG-CCC; DL-LDMG-Members; DL-LDMG-Advisors
Cc: Jarrod Delahunty; Angela Everist; vicki.callanan@northburnett.qld.gov.au; 'Peter Mann'
Subject: FCRC Drones Showcase
Attachments: FC Drones 2019.pdf

Hi Guys

The Fraser Coast Regional Council is holding the regions first Drones and Innovation Showcase at the Brolga Theatre, Maryborough – 19th June 2019.

The event will host many high profile speakers from the drone and innovation space and includes a specific presentation on the use of drones in emergency services, plus an emergency service/rescue display on the Mary River using drones.

As part of the presentations, is a presentation on;

- Drones in emergency services - The Ripper Group are the operators of Westpac Little Ripper Lifesaver, which deploys unmanned aircraft in both humanitarian and search and rescue response, (*The Westpac Little Ripper Lifesaver team successfully conducted the world's first drone ocean rescue in January 2018 in partnership with Surf Lifesaving*).
- The innovative use of drones within business, STEM education, certification and job opportunities.

Speakers in focus, (<https://www.fcdrones.com.au/speakers>):

- [sch4p4(6) Personal information] The Ripper Group International, official partner of the Westpac Rescue.
- [sch4p4(6) Personal information] the 'dame of drones' and current world leader in drone research is an advocate for gender diversity in STEM education and working on global projects where emerging technologies meet education and environmental needs.
- [sch4p4(6) Personal information] head of drone operations for the Australian Army.

To register or for more information, go to: <https://www.fcdrones.com.au/>

Included within the showcase will be a major drones and innovation display with an opportunity for hands on drone simulation experience, a drone rescue scenario on the Mary River and the opportunity to fly 'mini drones' - Guests can register for either full day or half day with lunch and refreshments supplied.

Could I ask you to pass on to colleagues you feel may be interested in attending.

Cheers

[sch4p4(6) Personal information]

Disaster Planning Coordinator
Fraser Coast Regional Council

T 4197 4330 M [sch4p4(6) Personal information]@frasercoast.qld.gov

<http://disaster.frasercoast.qld.gov.au/>



Published on DES Disclosure Log
RTI Act 2009

From: MCRAE Moyra
Sent: Tuesday, 30 April 2019 1:02 PM
To: BELCHER Ross
Cc: LAWTON Colin; Coastal Islands Permits
Subject: For endorsement: RE: Permit amendment assessment - sch4p4(6) Personal information
Attachments: CIR - PROJECT ASSESSMENT FORM - Park Staff p4(6) Personal inform Drone amendment_Great Sandy.docx; Amendment request USC sch4p4(6) Personal information Drones.docx

Hi Ross

This is an amendment to an existing permit for koala detection using trained dogs. She now wants to use thermal imagery using drones as another means of detection.

Col is fine with it with a legitimate observation. However the applicant states "The RPAS (drone) is operated following strict CASA-approved procedures for night flights by p4(6) Personal informat an experienced operator with current Remote Pilot License (RePL) and Remote Operator's Certificate (ReOC)".

Reply email to Coastal Island Permits is fine if endorsed.

Thanks

Moyra

From: LAWTON Colin <Colin.Lawton@des.qld.gov.au>
Sent: Tuesday, 30 April 2019 11:42 AM
To: MCRAE Moyra
Cc: HOEY Kieran
Subject: RE: Permit amendment assessment - Romane Cristescu

Hi Moyra

All ok or me although I don't know how they meet CASA regs. I thought drones could only be flown with a direct line of sight which will be difficult in the dark

Regards Col



**Queensland
Government**

Colin Lawton
Senior Ranger – Cooloola
Coastal and Islands Region
Queensland Parks and Wildlife Service
Department of Environment and Science

P 07 54869930 | E colin.lawton@des.qld.gov.au
Rainbow Beach Road
PO Box 44, Rainbow Beach 4581

From: MCRAE Moyra
Sent: Tuesday, 30 April 2019 10:19 AM
To: LAWTON Colin

Cc: HOEY Kieran

Subject: FW: Permit amendment assessment - sch4p4(6) Personal information

Hi Col

This is an amendment to sch4p4(6) Personal information koala detection dog permit. She now wants to use thermal imagery using drones as another means of detection. They are following CASA regs and as per amendment request have a few methods to help reduce disturbance.

Any concerns?

Moyra

From: Coastal Islands Permits <CoastalIslandPermits@des.qld.gov.au>

Sent: Tuesday, 16 April 2019 8:22 AM

To: MCRAE Moyra; ESDAILE John

Cc: KRIEGER George; DAVIES Matt; SEELEITHER Jamie

Subject: FW: Permit amendment assessment - sch4p4(6) Personal information

Hi all

PTUKI amendment request from sch4p4(6) Personal info o conduct thermal imaging of koalas using a drone.

Thanks

Renae

From: NEWMAN Gareth <Gareth.Newman@des.qld.gov.au>

Sent: Monday, 15 April 2019 4:13 PM

To: Coastal Islands Permits

Cc: Southern Permits Team; NEWMAN Gareth

Subject: Permit amendment assessment - sch4p4(6) Personal information

Good afternoon,

Please find attached a request for your assessment of an amendment to a PTUKI, a PTC and SPP under the associated legislation to undertake include drone based thermal imaging into the current Koala detection studies in the below QPWS&P managed areas:

- Cooloolool (Noosa River) Resources Reserve
- Cooroibah Conservation Park
- Great Sandy National Park, Cooloolool Section
- Bribie Island National Park and Recreational Area
- Cooloolothin Conservation Park
- Goat Island (Noosa River) Conservation Park
- Sheep Island Conservation Park
- Great Sandy Conservation Park
- Great Sandy National Park, Cooloolool Section (Northern Tip)
- Naree Budjong Djara National Park

The requested permit is for scientific purposes and will authorise the continued research into koala populations within Queensland's protected and non-protected areas

I have attached the following documents for your perusal:

- Assessment form template
- Amendment request from applicant

-Current approved permits (PTUKI, SPP, PTC)

- Draft Permits (PTUKI, SPP, PTC)
- Draft Information Notice

It would be most appreciated if you could consider the proposed arrangements and return the attached assessment form with your comments/assessment to parkaccess@npsr.qld.gov.au by 06/4/2019

Please let me know if there are other relevant stakeholders that need to be involved or if you have any concerns.

Regards,

Gareth

Gareth Newman

A/ Senior Project Officer – Assessments and Approvals

Permissions Management

QPWS & Partnerships

Department of Environment and Science

Ph: 3199 7586

Gareth.newman@des.qld.gov.au

From: MCLARTY Brendan
Sent: Tuesday, 24 September 2019 3:56 PM
To: CAVENDISH Peter; ENSLIN Justin; HARRIS Paul (Gympie)
Cc: SAMUELS Steve; JORDAN Sarah; HARRIS Justin; HARRIS Shaun; BULLEY Graeme; LESSONS Jay
Subject: FW: Analysis of North Bribie drone footage
Attachments: QPWS Form 2 - Drone vision analysis.doc

Hi Guys,
Peter's L's report on wildfire.

This may be of interest to Bribie discussions.

I have analysed the 434 drone file for any inconsistencies with the initial fire investigation. This footage is good and can be useful in an investigation, particularly to identify additional areas for examination.

The footage aligns closely with the investigation conclusions, however also identifies areas where further examination might have assisted the investigation. There appears to be an initial spotfire east of the triangle, within the square block, which originated from one of the scorch patches west of the triangle. It also appears that at least 2 separate fires occurred east of the triangle in addition to the original mild fire detected and contained by the first attending crew, again supporting the likelihood of spotting and any other possible causes most unlikely.

Cheers



**Queensland
Government**

Brendan McLarty
A/Ranger In Charge
Coastal & Islands Region | Bribie Island
Queensland Parks and Wildlife Service & Partnerships
Department of Environment and Science

P 07 34088451 Mob p4(6) Personal inform

White Patch Esplanade, Bribie Island

PO Box 324 Bribie Island, QLD. 4507

www.des.qld.gov.au

I acknowledge that Aboriginal Peoples and Torres Strait Islander Peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community.

I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.



From: PHILLIPS Dave (Innisfail) <Dave.Phillips@des.qld.gov.au>
Sent: Tuesday, 24 September 2019 3:41 PM
To: BELCHER Ross; CODY Mark; MCLARTY Brendan
Subject: FW: Analysis of North Bribie drone footage

FYI



David Phillips
A/Senior Ranger, Coastal Islands
Queensland Parks & Wildlife Service
Department of Environment and Science

P: 07 3101 2050 M: [redacted] 4p4(6) Personal informat
34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
dave.phillips@des.qld.gov.au

From: LEESON Peter <Peter.Leeson@des.qld.gov.au>
Sent: Tuesday, 24 September 2019 3:12 PM
To: MACDONALD Stirling
Cc: PHILLIPS Dave (Innisfail); CONNOR Nathan; KILLEN Tim; MCLAREN Amy
Subject: Analysis of North Bribie drone footage

Hi Stirling,
This may be of interest to Bribie discussions.

I have analysed the 434 drone file for any inconsistencies with the initial fire investigation. This footage is good and can be useful in an investigation, particularly to identify additional areas for examination.

The footage aligns closely with the investigation conclusions, however also identifies areas where further examination might have assisted the investigation. There appears to be an initial spotfire east of the triangle, within the square block, which originated from one of the scorch patches west of the triangle. It also appears that at least 2 separate fires occurred east of the triangle in addition to the original mild fire detected and contained by the first attending crew, again supporting the likelihood of spotting and any other possible causes most unlikely.

Regards,



Peter Leeson
Principal Conservation Officer, Fire Management
Operational Support | Park Services
Queensland Parks and Wildlife Service
Department of Environment and Science

P 07 5408 3710 [redacted] 4p4(6) Personal informat
QPWS | PO Box 697 | GYMPIE Qld 4570

From: SOWERBY Jody
Sent: Tuesday, 4 June 2019 3:03 PM
To: MCLARTY Brendan; SAMUELS Steve; JORDAN Sarah; CHRISTENSEN Terry; NEUMANN Rusty; DOWLING Roland; BEUKERS Thomas; MULLEN Trevor; BULLEY Graeme; SAUNDERS Michael; KARKLIS Anthony
Cc: KELLY Cheryn; LESSONS Jay
Subject: FW: Drone Company Details.
Attachments: Untitled 1.pdf

Hi all,

I have been contacted by a drone company and have been asked to pass on information with regards to application for weed control – please see attached and below.

Attached is a PDF (Apologies for the quality of the PDF) with a brief outline of what our strengths are.

The equipment I use is a P30 Xaircraft. It has a swath width of 2.5m and speeds of up to 8m/s depending on spraying volume.

It's delivery mechanism is a CDA (controlled disc applicator) which allows multiple settings when it comes to droplet size.

Another feature is, the CDAs are placed immediately below the props which push down the droplets reducing the risk of wind drift and increasing the coverage of the plant by an additional 60% (over high water volume rates) as it is able to cover below the leaf, making the application more effective and reducing runoff to almost non-existent.

Please find attached a video with a spraying operation we did this week in the North Burnett region.

<https://drive.google.com/open?id=10vI6mbT8BoP5qk8qggKe1cWgpLhUmgPg>

If you have any questions please contact Roger directly. Please pass onto other staff as you see fit.

sch4p4(6) Personal information

Drone That PTY LTD
Chief Remote Pilot

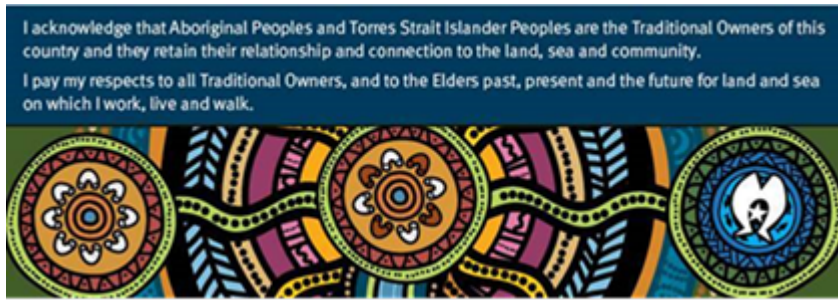
Kind Regards,
Jody



Jody Sowerby
Moreton Bay Area Assets Coordinator | Project Manager
Technical Support
Coastal and Islands Region / QPWS and Partnerships
Queensland Parks and Wildlife Service | Manly
Department of Environment and Science

P (07) 3101 2069, Mob **sch4p4(6) Personal information**
34 Trafalgar Street, Manly
QPWS P.O Box 5178, Manly QLD 4179





-----Original Message-----

From: [redacted]@dronethat.com.au>

Sent: Wednesday, 15 May 2019 7:32 AM

To: SOWERBY Jody

Subject: Drone That contact details.

Hi Jody,

Thanks for your time on the phone yesterday.

Attached is a PDF (Apologies for the quality of the PDF) with a brief outline of what our strengths are.

The equipment I use is a P30 Xaircraft. It has a swath width of 2.5m and speeds of up to 8m/s depending on spraying volume.

It's delivery mechanism is a CDA (controlled disc applicator) which allows multiple settings when it comes to droplet size.

Another feature is, the CDAs are placed immediately below the props which push down the droplets reducing the risk of wind drift and increasing the coverage of the plant by an additional 60% (over high water volume rates) as it is able to cover below the leaf, making the application more effective and reducing runoff to almost non existent.

If you have any questions please let me know.

Best regards

[redacted]

Chief Remote Pilot
Drone That Pty Ltd

[redacted]

NIVALA Anneli

From: BELCHER Ross
Sent: Thursday, 12 September 2019 11:33 AM
To: CODY Mark; DARGUSCH Marc; MACDONALD Stirling; MOORE Nicole
Cc: NIVALA Anneli
Subject: FW: Drone Purchase - Bribie Is management unit



Gday all, just a heads-up in regard to discussions we will be having soon in the RLT – see email from SR Dave Phillips below.

I am strongly supportive of drones with thermal imaging capacity being available for use for a variety of uses over QPWS estate.

Cheers

Ross Belcher

A/Manager (Moreton Bay Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P : 07 3101 2053

M : p4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

From: PHILLIPS Dave (Innisfail) <Dave.Phillips@des.qld.gov.au>

Sent: Thursday, 12 September 2019 11:17 AM

To: BELCHER Ross

Cc: MCLARTY Brendan; HARRIS Justin

Subject: Drone Purchase - Bribie Is management unit

Ross,

In the aftermath of the recent wildfire on Bribie Island, it has highlighted the importance in the use of drones for fireground assessment, and the general use in park management. The Bribie Island management unit would like to purchase a drone, for use in fire, pest and general park management.

All of the current drones in use by parks are the – DJI Phantom 4 (updated model is the Phantom 4 Pro+) – This has an excellent camera and good flight characteristics – Current price \$2799 + extras for batteries, SD cards, etc.

In researching what is now available, DJI have just released a model called – Mavic 2 Enterprise Dual - \$4520 + extras

The Mavic 2 Enterprise Dual has the added advantage of having both a visual camera & a thermal imaging camera, which would be a huge advantage when assessing hotspots in a fireground, finding lost persons, and help in the identification of pest animals.

Both of these models have similar flight characteristics (wind, collision avoidance, flight time & range), and the purchase price is the equivalent of less than 1hr in a helicopter.

Due to the fact that we would only purchase 1 drone for prolonged use, I would like to propose that we purchase the 'Mavic 2 Enterprise Dual'.

Q: Is the agency still running in-house training for the use of drones? And what are the legal requirements?

For your consideration....



David Phillips
A/Senior Ranger, Coastal Islands
Queensland Parks & Wildlife Service
Department of Environment and Science

P: 07 3101 2050 M: 4p4(6) Personal informa
34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
dave.phillips@des.qld.gov.au

Published on DES Disclosure Log
RTI Act 2009

NIVALA Anneli

From: BELCHER Ross
Sent: Thursday, 26 September 2019 4:27 PM
To: PHILLIPS Dave (Innisfail)
Subject: FW: Drone Purchase - Bribie Is management unit
Attachments: FW: Prices for P4 and Mavic 2 Series Drones



Gday Dave, can you talk to Matt Davies please in regard to the quotes for the drones. We have a Regional Drone Officer (Mark Burnham) who reports to Matt. Cheers

Ross Belcher
A/Manager (Moreton Bay Area)
Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P : 07 3101 2053

M p4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

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Sent: Thursday, 12 September 2019 11:33 AM
To: CODY Mark; DARGUSCH Marc; MACDONALD Stirling; MOORE Nicole
Cc: NIVALA Anneli
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Cheers

Ross Belcher
A/Manager (Moreton Bay Area)
Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships
Department of Environment and Science

P : 07 3101 2053

M p4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

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Sent: Thursday, 12 September 2019 11:17 AM
To: BELCHER Ross
Cc: MCLARTY Brendan; HARRIS Justin
Subject: Drone Purchase - Bribie Is management unit

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For your consideration....



David Phillips
A/Senior Ranger, Coastal Islands
Queensland Parks & Wildlife Service
Department of Environment and Science

P: 07 3101 2050 M: p4(6) Personal informa

34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
dave.phillips@des.qld.gov.au

NIVALA Anneli

From: SAUNDERS Michael
Sent: Tuesday, 10 December 2019 5:05 PM
To: NIVALA Anneli
Subject: FW: Drone stuff

Follow Up Flag: Follow up
Flag Status: Flagged

Re Drone RTI – only other email I have within timeframes. Received from Biosecurity re weed management.

From: JORDAN Sonia <Sonia.Jordan@daf.qld.gov.au>
Sent: Tuesday, 29 January 2019 1:43 PM
To: SAUNDERS Michael
Subject: Drone stuff

Hi Michael

As discussed, below is an idea of what we purchased and costings.

Phantom 4 Pro drone specifications

- 20MP 1-inch CMOS sensor
- 4K 60fps Video
- Burst shooting up to 14fps
- Up to 30 minutes flying time
- Top speed of up to 72km/h
- Obstacle avoidance
- Light weight (under 2 kg)

Approximate drone cost: \$2400

Accessories required:

- 2 x spare batteries - \$600
- Portable car charger - \$ 109
- Memory cards x 2 - \$400
- Carry protective backpack - \$400
- Ipad mini - \$550
- Screen cover (to increase visibility in the field from direct sun) - \$100

Cheers



Sonia Jordan

Senior Biosecurity Officer, Invasive Plants & Animals, Biosecurity Queensland
Department of Agriculture and Fisheries

T 07 3087 8075 M 4(6) Personal information sonia.jordan@daf.qld.gov.au W www.daf.qld.gov.au
Level 2, 41 George Street, Brisbane QLD 4000
GPO Box 46, Brisbane QLD 4001

Customer Service Centre 13 25 23

Follow us on [Facebook](#), Twitter [@BiosecurityQld](#), [YouTube](#) and [LinkedIn](#)

NIVALA Anneli

From: DOWLING Roland
Sent: Tuesday, 10 December 2019 12:28 PM
To: NIVALA Anneli
Subject: FW: Fort Lytton - 2020 Military International Drone Racing Event enquiry - DUNN

As per search request.

R

From: Fort Lytton National Park <Fort.Lytton@des.qld.gov.au>
Sent: Wednesday, 23 October 2019 4:14 PM
To: Coastal Islands Permits
Cc: DOWLING Roland
Subject: RE: Fort Lytton - 2020 Military International Drone Racing Event enquiry - DUNN

Hi Alicia,

We will discuss the proposal with the applicant and get back to you.

Kind regards,



Mette Juel
Ranger

Fort Lytton NP and St Helena Island NP, Moreton Bay
Coastal and Islands Region | QPWS & Partnerships
Department of Environment and Science

P (07) 3393 4647 | M 4(6) Personal inform
E: mette.juel@des.qld.gov.au
160 South Street, Lytton QLD 4178
PO Box 293, Lytton QLD 4178



From: Coastal Islands Permits <CoastalIslandPermits@des.qld.gov.au>
Sent: Wednesday, 23 October 2019 3:52 PM
To: Fort Lytton National Park
Subject: FW: Fort Lytton - 2020 Military International Drone Racing Event enquiry - DUNN

Good afternoon

The below enquiry has been received for Fort Lytton NP.

Are you able to discuss the proposal with the applicant and advise of any permissions required?

I can follow up with the applicant on any approvals required once you have discussed.

Kind regards



Alicia Powley
A/Ranger | Visitor Management | Technical Support
Coastal and Islands Region / QPWS & Partnerships
Department of Environment and Science

P 07 5459 6197
Level 6, 12 First Avenue
MAROOCHYDORE QLD 4558



From: [redacted] CAPT - ARMY 4 [redacted] [\[redacted\]@defence.gov.au](mailto: [redacted]@defence.gov.au)

Sent: Tuesday, 22 October 2019 3:57 PM

To: QPWS

Subject: 2020 Military International Drone Racing Event at Fort Lytton enquiry [SEC=UNCLASSIFIED]

UNCLASSIFIED

Good afternoon

My name is [redacted] I am a staff and events planning officer for the Australian Army's Unmanned Aerial Systems events. Our role is to coordinate international drone racing tournaments and STEM events for military and civilian participants on behalf of the Army.

In August/September 2020 we are holding an international military drones competition in Brisbane to coincide with the Land Forces conference. We are very interested in Fort Lytton as a venue for such an event. It would feature 40-60 participants from militaries around the world over three days. The drones in question are small (about the size of a dinner plate), and the racing course is typically no bigger than tennis court.

May I request a suitable point of contact to enquire about the use of this venue for 2020?

Furthermore a colleague and I will be in Brisbane on the 28th of October (next Monday) to see the fort. If a QPWS representative were free we would be very keen to present our proposal and explain in detail what we are proposing.

Many thanks in advance!

[redacted]

Captain
Planning Staff
UAS Events



[redacted]

IMPORTANT: This email remains the property of the Department of Defence. Unauthorised communication and dealing with the information in the email may be a serious criminal offence. If you have received this email in error, you are requested to contact the sender and delete the email immediately.

NIVALA Anneli

From: SAUNDERS Michael
Sent: Tuesday, 10 December 2019 5:04 PM
To: NIVALA Anneli
Subject: FW: NSI Pest budget information

Follow Up Flag: Follow up
Flag Status: Flagged

Re Drone RTI request – unsure if relevant. We have not progressed any of the drone ideas below.

From: SAUNDERS Michael
Sent: Friday, 21 September 2018 5:01 PM
To: BULLEY Graeme <Graeme.Bulley@des.qld.gov.au>; JMC@qyac.net.au
Cc: KARKLIS Anthony <Anthony.Karklis@des.qld.gov.au>; BLACKWELL Ben <Ben.Blackwell@des.qld.gov.au>; Joel Bolzenius <joel.bolzenius@qyac.net.au>; Jacob Martin <jacob.martin@qyac.net>; BURNS Isaac <Isaac.Burns@des.qld.gov.au>
Subject: NSI Pest budget information

Dear All,

Please find below a summary of our Pest budget discussion on Tuesday. If all ok I will progress to a draft spreadsheet for OIWG:

- Cat/Fox and Turtle nest protection trapping (including equipment and staff O/T on-costs) \$10K
- Pest plant NSI & Peel (Chemical & Equipment) \$5K
- QYAC Contractor (Baiting) \$10K
- 223 Procurement (including all accessories) \$3.5K
- Thermal detection (Range finder thermal binocular) \$7K
- Support of Biosecurity Helo Aerial Bitou Surveys \$8K – requirements yet to be confirmed with Lynn Wilshire (Approx 5hrs flying time @ \$1700/hr)
- Felixer Feral Cat grooming trap (possible trial at NSI) \$8-12K (see attached information sheet for WA trials)
- Camera monitoring \$3.5K (increasing capability of remote transponding 4G cameras – added value for compliance also)
- Fox den detection and fumigation \$3.5K

Other options:

- CASA approved Thermal Drone and Drone Operator capability \$6K
- GIS low orbit nano-tech satellite collar direct tracking technology

Please give me a call if you have any queries, noting

sch4p4(6) Personal information

Cheers,

Michael



Michael Saunders
Ranger

NSI | South East Region
Queensland Parks and Wildlife Service
Department of **Environment and Science**

P: 07 3101 2059 | E: michael.saunders@des.qld.gov.au | www.npsr.qld.gov.au
34 Trafalgar Street | Manly QLD 4179 | PO Box 5178, Manly QLD 4179
please consider the environment before printing this email

I acknowledge that Aboriginal Peoples and Torres Strait Islander Peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community.
I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.



From: PHILLIPS Dave (Innisfail)
Sent: Thursday, 19 September 2019 2:16 PM
To: BELCHER Ross
Subject: FW: Prices for P4 and Mavic 2 Series Drones
Attachments: David Philips Pricing.xlsx

Ross,

Went and had a little chat to the DJI drone guys today, regarding prices & extras.

Attached is a list of the prices. Note the discount they are prepared to offer us.....

Good information for the RLT.

Cheers



David Phillips
A/Senior Ranger, Coastal Islands
Queensland Parks & Wildlife Service
Department of Environment and Science

P: 07 3101 2050 M: [redacted] (6) Personal information
34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
dave.phillips@des.qld.gov.au

From: [redacted] (6) Personal information <[redacted]@d1store.com.au>
Sent: Thursday, 19 September 2019 2:10 PM
To: PHILLIPS Dave (Innisfail)
Cc: Indooroopilly ARS
Subject: Prices for P4 and Mavic 2 Series

Hi David,

Hope this email finds you well. Attached I have prepared a spreadsheet with pricing for the various products you requested. I have also included pricing for the mavic 2 enterprise (Non thermal, zoom sensor) which features the speaker/light attachments as another option.

In regards to the Mavic 2 series I have provided the option for a fly more kit, this includes 2 batteries, charging hub, car chargers and a few other accessories and works out cheap than the accessories on their own, see below:

<https://www.d1store.com.au/products/mavic2-fly-more-kit>

Additionally I have included care refresh/enterprise shield. More information on care refresh is available below:

<https://www.d1store.com.au/lounge/content/everything-you-need-to-know-about-care-refresh>

More information on Enterprise Shield is available below:

<https://enterprise.dji.com/enterprise-shield>

If you would like an official quote done up or have any questions, don't hesitate to email me or phone me.

Enjoy the rest of your week,

Best Regards,

sch4p4(6) Personal information

Product Specialist | Indooroopilly

T : 1800 888 354

W : www.d1store.com.au



From: sch4p4(6) Personal information <[REDACTED]>@dronethat.com.au>
Sent: Friday, 24 May 2019 8:47 AM
To: SOWERBY Jody
Subject: Fwd: Drone That contact details.
Attachments: Untitled 1.pdf

Hi Jodie,

Please find attached a video with a spraying operation we did this week in the North Burnett region.

<https://drive.google.com/open?id=10vI6mbT8BoP5qk8qqgKclcWgpLhUmgPq>

Please let me know if you have any problems with the link.

Best regards

Best

[REDACTED]
sch4p4(6) Personal information

Drone That PTY LTD
Chief Remote Pilot

----- Forwarded message -----

From: sch4p4(6) Personal information <[REDACTED]>@dronethat.com.au>
Date: Wed, 15 May 2019 at 07:32
Subject: Drone That contact details.
To: Jodie Sowerby <Jody.Sowerby@des.qld.gov.au>

Hi Jody,

Thanks for your time on the phone yesterday.

Attached is a PDF (Apologies for the quality of the PDF) with a brief outline of what our strengths are.

The equipment I use is a P30 Xaircraft. It has a swath width of 2.5m and speeds of up to 8m/s depending on spraying volume.

It's delivery mechanism is a CDA (controlled disc applicator) which allows multiple settings when it comes to droplet size.

Another feature is, the CDAs are placed immediately below the props which push down the droplets reducing the risk of wind drift and increasing the coverage of the plant by an additional 60% (over high water volume rates) as it is able to cover below the leaf, making the application more effective and reducing runoff to almost non existent.

If you have any questions please let me know.

Best regards

sch4p4(6) Personal information

Chief Remote Pilot
Drone That Pty Ltd

sch4p4(6) Personal information

Published on DES Disclosure Log
RTI Act 2009

From: sch4p4(6) Personal information <[REDACTED]>@dronethat.com.au>
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Best regards

Best

[REDACTED]
sch4p4(6) Personal information

Drone That PTY LTD
Chief Remote Pilot

----- Forwarded message -----

From: sch4p4(6) Personal information <[REDACTED]>@dronethat.com.au>
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Best regards

[Redacted] sch4p4(6) Personal information

Chief Remote Pilot
Drone That Pty Ltd

+ [Redacted] sch4p4(6) Personal information

Published on DES Disclosure Log
RTI Act 2009

Meeting Minutes

Southern Indigenous Ranger Network
Tuesday, 5 November 2019

Date: 05/11/2019
Time: 0830-1200
Location: Bribie Island

ATTENDEES

Erin Atkinson, Rod Manthey, Boyd Blackman, Dwight Blackman, Malcolm Burns, Darryl Wiley, Mark Hopper, Sarah Mahoney, Russ Simpkins, Bryan Phillips-Petersen, Anthony Karklis, Ryner Coghill, Lucas Close, Brian Coghill, Jacob Matrin, Mark Jones, Jarlon Burns, John Green, Darren Blake, Alexis Rashleigh, Trevor Mullens, Drew Gulash, Troy Brooms, Leon Appo, Clinton Brewer, Pete Seden, Brian Warner

APOLOGIES

Sam Wilner, Jenna Tapply

HOUSEKEEPING

- Facilities – Boyd Blackman
- Welcome to Country – Brian Warner

ON-GOING DISCUSSIONS AND NEW BUSINESS AND OVERVIEW

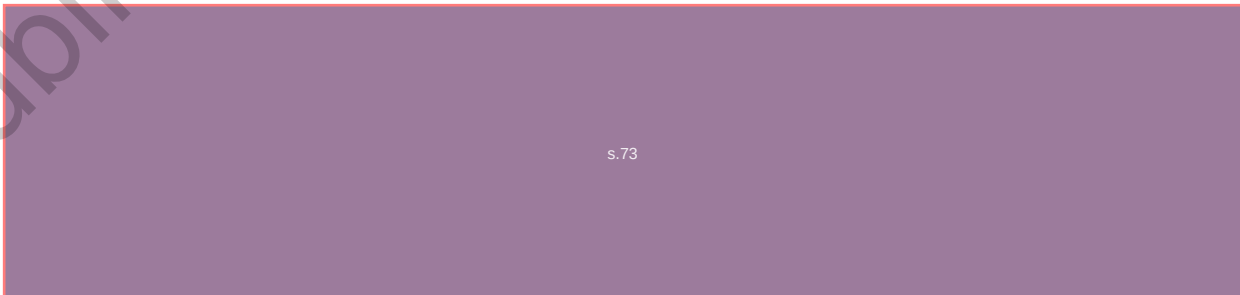
NATIVE TITLE – ROD MANTHEY

s.73

TRADITIONAL BURNS



TRADITIONAL BURNS



DRONES

We need to get licenced. They would be great to use on burns, wongari, lost people.

Trevor- put forward a business case to get a drone after the Bribie Fire and was knocked back. Had to borrow Hancocks drone. Drones are the best tool.

ACTION – (all) talk about tomorrow day 2. Push that every unit needs a drone, it works.

IDENTIFIED POSITIONS

s.73

PIPECLAY BURN – Boyd Blackman

s.73

s.73

s.73

Meeting Close: 12:00pm

ACTIONS

Action Item		Person/s responsible	Due date
1	Email photos of Bora Ring etc.	Erin	ASAP

s.73

NIVALA Anneli

From: BULLEY Graeme
Sent: Tuesday, 5 November 2019 11:37 AM
To: NIVALA Anneli; LESSONS Jay; BELCHER Ross; MCLARTY Brendan
Cc: KARKLIS Anthony; DOWLING Roland; CHRISTENSEN Terry
Subject: RE: Action: Management of Drones - Due to Corro ADG by cob 11 Nov 2019



**Queensland
Government**

Department of Environment and Science

Anneli,
NSI have not purchased any drones

Regards
Graeme Bulley
Senior Ranger North Stradbroke Island
Coastal and Islands Region / QPWS & Partnerships

Mob sch4p4(6) Personal information

From: NIVALA Anneli
Sent: Tuesday, 5 November 2019 11:02 AM
To: LESSONS Jay; BELCHER Ross; MCLARTY Brendan; BULLEY Graeme
Cc: KARKLIS Anthony; DOWLING Roland; CHRISTENSEN Terry
Subject: Action: Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Good morning all,

Have any of your teams acquired drones since the last request in September?

If so I will quiz you for more info to input into the register

Kind regards,

Anneli Nivala

Moreton Bay Area Administration Officer
Coastal and Islands Region

QPWS and Partnerships | Dept. of Environment and Science
07 3101 2078 | PO Box 5178 Manly QLD 4179

34 Trafalgar Street Manly QLD 4179
<http://www.des.qld.gov.au/>

From: Corro QPWS gbrmci CIR <QPWSgbrmciCIR.Corro@des.qld.gov.au>
Sent: Monday, 4 November 2019 12:28 PM
To: EMBREY Teena; CANAGASURIAM Keshini; NIVALA Anneli
Cc: Corro QPWS gbrmci CIR
Subject: FW: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi Folks,

Please let me know if I am forwarding to the correct parties.

Hi teams

ACTION: Please provide/update information in all worksheets (use of drones in des, definitions, drones register, drone operator) in the DES drone register located [here](#). Provide nil response or email confirmation to Corro CIR when the task is completed

DUE DATE: To Corro CIR by 10 am Monday 11 November 2019

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Kind regards,
Elle



Elle Hart

A/Regional Administration Officer, Coastal and Islands Region
GBRMCI | QPWS & Partnerships
Department of Environment and Science

P: 07 3101 2058
34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
Elle.Hart@des.qld.gov.au

From: Corro DES QPWS GBRMCI

Sent: Monday, 4 November 2019 12:00 PM

To: Corro DES QPWS GBRMCI; Corro QPWS gbrmci CIR; Corro QPWS gbrmci GBR MPR

Subject: FW: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi teams

ACTION: Please provide/update information in all worksheets (use of drones in des, definitions, drones register, drone operator) in the DES drone register located [here](#). Provide nil response or email confirmation to Corro GBRMCI when the task is completed

DUE DATE: To Corro GBRMCI by 12 noon Monday 11 November 2019

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Cheers

Jo

Jo Gruer

Principal Advisor – GBR, Marine Parks, Coastal and Islands
Management and Operations | QPWS & Partnerships
Department of Environment and Science, P 07 3199 7521

From: ABURN Mark <Mark.Aburn@des.qld.gov.au>

Sent: Friday, 1 November 2019 10:07 AM

To: Corro DES QPWS Park Services; Corro DES QPWS GBRMCI; Corro DES QPWS Southern; Corro DES QPWS Northern; Corro DES QPWS WTS

Cc: Corro DES QPWS ADG

Subject: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi all,

The request below was originally sent out when the recent bushfire situation was ramping up, so obviously we could only devote a certain amount of attention to this request.

Could I please ask that your teams re-visit the spreadsheet and update any missing data (particularly barcode and asset numbers), including entering in the data of any new drones that have been purchased since September 2019. Updates should be done via the link below.

Management of drones

ACTION: Further to the email requests below, could you please submit your response ensuring the appropriate information is entered into **all of the tabs** in the SharePoint document. **Please see link [here](#) to a departmental register of Drones, pilots and Divisional uses.**

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Please have your ED approvals to Corro ADG by cob Monday 11th of November 2019.

Kind regards,



Mark Aburn
Principal Advisor
Office of the Assistant Director-General
Management and Operations | QPWS & Partnerships
Department of Environment and Science

P 07 3199 7526
Level 5, 400 George Street Brisbane QLD 4000
PO Box 15187 CITY EAST QLD 4000

CIR Regional Leadership Team

Meeting minutes

Details

Chair	Stirling MacDonald (A/PR TS)
Date	Wednesday, 30 October 2019
Timing	10.30am – 3.00pm
Location	Room 1:10, Level 1 Maroochydore Office

Present

Mark Cody (A/RD); Marc Dargusch (A/PR), Ross Belcher (A/M); Matt Davies (A/APR), Jamie Seeleither (A/PR SP); Galen Mathews (SPO); Ben Blackwell (SPO); Emma Barraclough (A/SR); Rhonda Clelland (SPO); Mark Burnham; Nicole Moore (RSO)

Apologies

NIL

Items

Item #	Discussion
1. RD Update	<div><div></div><div>s.73</div></div>
2. WHS/Training/HR	

3. Budget Overview

-
-
-
-

s.73

Capital

4. Capital & Maintenance

s.73

Maintenance

5. Vehicle/Vessels

s.73

6. Regional Indigenous Engagement

-
-
-
-
-
-

[Redacted]

s.73

Drone Management

- Qld leading the way in drone usage. QPWS&P using drones for a number of years. 54 pilots across State with 34 drones. Information can be costly to process. Brett – Chief Pilot and manages drone fleet.. Approx \$2k per licence. Face to Face 4/5 course required. All information available online (CASA requirements, flight plans, maintenance schedules, operational policy and procedures). Mark Burnham expects policy to be implemented very soon. Storage of footage generates large files which need specific software. Greg Carter has offered to show CIR Mavrick Duel 2. Suggested that a regional champion trains others. Propose to have 2 in region. 1 currently at Cooloola. Purchase another one for Bribie (pending budget). Costs approx. \$4.5k drone and \$800 for flight gear. QYAC mentioned policy on drone management at recent research forum – need to be mindful within Quandamooka country. Ben waiting on a copy of QYAC policy. Need to know legislative requirements as some CIR staff are currently using drones.

CIR Enhanced Fire Management

- Project costings for 19/20 presented. Must contribute to enhanced ability to prevent fire/wildfire mitigation. Full budget of \$15M over 5 years. \$2M thereafter. New fire units to be rolled out. CIR allocation increased from \$30K to \$80K. Meeting scheduled for end of November – work out future. Examples for funding include Annual fire refresher, First Nation interaction, Drone Purchase, IC trailer.

Sharepoint

-

[Redacted]

s.73

CTO Communication Protocol

-

[Redacted]

s.73

Vehicle recognition

-

[Redacted]

s.73

7. General Business Issues

Action Items

Item #	Action	Responsible
1. Capital & Maintenance	<div>s.73</div>	
2. Regional Indigenous Engagement		
3. General Business Issues	<p><u>Drone Management</u></p> <ul style="list-style-type: none"> Purchase 1 x drone for Bribie Island Information from Greg Carter to be passed onto Manager MBA on Maverick Duel 2. Regional audit to be conducted to ensure that CIR are currently meeting legislative requirements <p><u>Enhanced Fire Management</u></p> <ul style="list-style-type: none"> Project costings to be circulated after next meeting Tech Support (Ops) to be consulted to develop Enhanced Fire Management projects 	<p>R Belcher (A/Manager MBA)</p> <p>M Burnham (Tech Support)</p> <p>M Burnham (Tech Support)</p> <p>S MacDonald (A/PR, Tech Support)</p> <p>S MacDonald (A/PR, Tech Support)</p>

Next meeting

Date	Wednesday, 27 November 2019
Time	10.00 – 3.00
Location	Manly Conference Room

From: DES Director General
Sent: Friday, 9 August 2019 11:19 AM
To: All DES Staff
Subject: National Science Week 2019

Importance: High



Dear colleagues

National Science Week (10–18 August) is Australia's annual celebration of science and technology—an opportunity to appreciate the wonder of science and acknowledge the contribution scientists make to the world of knowledge.

It's a chance for us to recognise the outstanding achievements of our Queensland scientists and the difference they make to all our lives through new discoveries and their passion for learning and innovation.

At a departmental level, our scientists and researchers provide the leading-edge science that helps shape our policies, planning and underpins our decision-making. It supports the important work we're doing in areas such as biodiversity, climate change, wildlife, land and water management and disaster management and response.

Over the past 12 months, we have encouraged the Queensland community to take an active part in science by increasing opportunities for participation and collaboration. Through the Queensland Citizen Science Strategy and the Engaging Science Grants program we are providing opportunities for everyday Queenslanders to contribute to the research our scientists do and increase our scientific knowledge.

National Science Week also aims to encourage younger people in particular to take an interest in scientific pursuits and engage with the world we live in.

To celebrate this National Science Week, the Office of the Chief Scientist will be holding a regional STEM Pop-up in Maryborough. More than 2500 school students will take part in hands-on science, technology, engineering and mathematical (STEM) activities including how to code their own apps and computer games, and how to build and fly micro-drones. They'll also participate in virtual reality experiences where they can explore the world's coral reefs and design future cities on Mars.

At the Ecosciences Precinct in Brisbane, there will be a program of events including talks, tours and displays. It's the perfect time for you to find out more about topics such as 'how we can influence littering behaviour' and 'virtual reality for wildlife monitoring' and connect with your science colleagues. More information on these events is available on the [intranet](#).

I encourage you to visit the [National Science Week](#) website to find out more about the activities in your own local area so you too can learn more and have fun with science!

Regards

Jamie Merrick
Director-General

This email was sent by Department of Environment and Science, 400 George Street, Brisbane Qld 4001 to susan.flynn@des.qld.gov.au

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NIVALA Anneli

From: SEELEITHER Jamie
Sent: Wednesday, 2 October 2019 8:20 AM
To: BELCHER Ross
Subject: RE: Allocated to you; Due04/10/19; CTS No.25887/19; Concerning (QPWS&P) // MP LTR // Seeking your corporation in exploring whether there are any available public land suitable to fly small "park" tyre battery powered model aircraft (preferably a locatio

Categories: Ross

Ross
No hard and fast policy yet as the Department are still working towards that.
There is an aircraft policy if they are classed as aircraft.
I would be standing on the zoning of Bribie (in the old management plan) and the unsuitability (if that is a word) of the terrain on Bribie. I would also be pointing to Council Parks/ ovals and aeroclubs as places where this activity can occur. There is a model plane club and associated lands on the Sunshine Coast near an industrial estate.

I would be also quoting NCA regarding preservation and appreciation of the natural environment as the proper use of an NP.

The management planning process soon to be underway for Bribie would be a good place for this gentleman to make a submission.

Happy to discuss

Cheers

Jamie.

Jamie Seeleither

A/ Assistant Principal Ranger – Technical Support



Coastal and Islands Region / QPWS & Partnerships

Department of Environment and Science

P (07) 54596130 | M p4(6) Personal inform | E: jamie.seeleither@npsr.qld.gov.au
12 First Avenue Maroochydore QLD 4558 |

From: BELCHER Ross <Ross.Belcher@des.qld.gov.au>

Sent: Tuesday, 1 October 2019 4:25 PM



To: SEELEITHER Jamie

Cc: MACDONALD Stirling; PHILLIPS Dave (Innisfail)

Subject: FW: Allocated to you; Due04/10/19; CTS No.25887/19; Concerning (QPWS&P) // MP LTR // Seeking your corporation in exploring whether there are any available public land suitable to fly small "park" tyre battery powered model aircraft (preferably a locatio

Gday Jamie, are you able to provide any assistance with this please? I do not have any agency policy on model aircraft or drones on the top of my head, and am hoping that you do! If not we will have to do the hard yards.

If we are obliged to accommodate this type of activity (and I hope we do not) then we may be able to identify some suitable locations in the peat swamp on the island.

Cheers, Ross

Ross Belcher

A/Manager (Moreton Bay Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P : 07 3101 2053

M: 4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

From: Corro DES Minister and DG <DESMinisterandDG.Corro@des.qld.gov.au>

Sent: Tuesday, 1 October 2019 3:55 PM

To: BELCHER Ross

Subject: Allocated to you; Due04/10/19; CTS No.25887/19; Concerning (QPWS&P) // MP LTR // Seeking your corporation in exploring whether there are any available public land suitable to fly small "park" tyre battery powered model aircraft (preferably a locatio

Please click on the [Item Link](#) to view the item on MECS.

CTS No. 25887/19 has been allocated to you by Corro QPWS gbrmci CIR for action. This item is due on 04/10/19. They provided the following comments (if any): **Hi Ross, Can you please arrange for a MP response (using the template in the attachments). Please also accept authorship before commencing. Due to Corro CIR by COB Friday, 4 October 2019. Thanks Nic.**

You should either:

1. Allocate this to an officer for action. ([show me how](#))
2. Take responsibility for preparing a response by 'Accepting Authorship'. ([show me how](#))
3. Send back to the person who sent it to you by selecting 'Return to Sender'. ([show me how](#))

NIVALA Anneli

From: CODY Mark
Sent: Thursday, 12 September 2019 12:36 PM
To: MACDONALD Stirling
Cc: BELCHER Ross; MOORE Nicole; DARGUSCH Marc
Subject: RE: Drone Purchase - Bribie Is management unit



Stirling, I had in the back of mind we had a nominated 'drone officer' in TS but cannot remember who. Could we ask that person, or someone else with some available time, to liaise with Dave and centric team (Marcus?) about models, costs, training, policy etc, for a brief to inform next week's RLT.

I am supportive of having a limited fleet of drones and trained pilots/operators within the region to support fire, pest and general ecological/cultural landscape monitoring and recording.

Mark Cody

Acting Regional Director

Coastal and Islands Region | QPWS and Partnerships

Department of Environment and Science

P 07 5459 6120 M n4p4(6) Personal informati

Level 6 12 First Ave

Maroochydore QLD 4558

From: BELCHER Ross <Ross.Belcher@des.qld.gov.au>
Sent: Thursday, 12 September 2019 11:33 AM
To: CODY Mark; DARGUSCH Marc; MACDONALD Stirling; MOORE Nicole
Cc: NIVALA Anneli
Subject: FW: Drone Purchase - Bribie Is management unit

Gday all, just a heads-up in regard to discussions we will be having soon in the RLT – see email from SR Dave Phillips below.

I am strongly supportive of drones with thermal imaging capacity being available for use for a variety of uses over QPWS estate.

Cheers

Ross Belcher

A/Manager (Moreton Bay Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P : 07 3101 2053

M n4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

From: PHILLIPS Dave (Innisfail) <Dave.Phillips@des.qld.gov.au>
Sent: Thursday, 12 September 2019 11:17 AM
To: BELCHER Ross
Cc: MCLARTY Brendan; HARRIS Justin
Subject: Drone Purchase - Bribie Is management unit

Ross,

In the aftermath of the recent wildfire on Bribie Island, it has highlighted the importance in the use of drones for fireground assessment, and the general use in park management. The Bribie Island management unit would like to purchase a drone, for use in fire, pest and general park management.

All of the current drones in use by parks are the – DJI Phantom 4 (updated model is the Phantom 4 Pro+) – This has an excellent camera and good flight characteristics – Current price \$2799 + extras for batteries, SD cards, etc.

In researching what is now available, DJI have just released a model called – Mavic 2 Enterprise Dual - \$4520 + extras

The Mavic 2 Enterprise Dual has the added advantage of having both a visual camera & a thermal imaging camera, which would be a huge advantage when assessing hotspots in a fireground, finding lost persons, and help in the identification of pest animals.

Both of these models have similar flight characteristics (wind, collision avoidance, flight time & range), and the purchase price is the equivalent of less than 1hr in a helicopter.

Due to the fact that we would only purchase 1 drone for prolonged use, I would like to propose that we purchase the 'Mavic 2 Enterprise Dual'.

Q: Is the agency still running in-house training for the use of drones? And what are the legal requirements?

For your consideration....



David Phillips
A/Senior Ranger, Coastal Islands
Queensland Parks & Wildlife Service
Department of Environment and Science

P: 07 3101 2050 M: 4p4(6) Personal informa
34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
dave.phillips@des.qld.gov.au

NIVALA Anneli

From: EDMED Greg
Sent: Friday, 22 November 2019 9:41 AM
To: BELCHER Ross
Subject: RE: Drone Purchase - Bribie Is management unit

Thanks for sending this through Ross,

I was going to ask where this one was at. Agree great little project for Mark Daly

Regards

Greg Edmed

A/Senior Ranger
Bribie Island / Southern Bay Islands - Moreton Bay Area
Coastal and Islands Region / QPWS & Partnerships
Department of Environment and Science
Mip4(6) Personal informa E:greg.edmed@des.qld.gov.au



From: BELCHER Ross <Ross.Belcher@des.qld.gov.au>
Sent: Friday, 22 November 2019 9:13 AM
To: EDMED Greg
Cc: BURNHAM Mark
Subject: FW: Drone Purchase - Bribie Is management unit

Gday Greg,

I am keen to maintain forward momentum in the purchase and use of drones, aligned with pilot selection, training and relevant authorisations. Storage, identification and retrieval of images will be significant focus areas for us.

Can you assess the information below gathered by Dave Phillips please?

This may be a project that Mark Daley could undertake?

The actions below are from the CIR Regional Leadership Team meeting of 30 October 2019:

Drone Management

- Purchase 1 x drone for Bribie Island
- Information from Greg Carter to be passed onto Manager MBA on Maverick Duel 2.
- Regional audit to be conducted to ensure that CIR are currently meeting legislative requirements

R Belcher (A/Manager MBA)
M Burnham (Tech Support)

M Burnham (Tech Support)

For further discussion from Monday week.

Cheers



Ross Belcher

A/Manager (Moreton Bay Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P : 07 3101 2053

M: 4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

From: BELCHER Ross

Sent: Thursday, 26 September 2019 4:27 PM

To: PHILLIPS Dave (Innisfail)

Subject: FW: Drone Purchase - Bribie Is management unit

Gday Dave, can you talk to Matt Davies please in regard to the quotes for the drones. We have a Regional Drone Officer (Mark Burnham) who reports to Matt. Cheers

Ross Belcher

A/Manager (Moreton Bay Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P : 07 3101 2053

M: p4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

From: BELCHER Ross

Sent: Thursday, 12 September 2019 11:33 AM

To: CODY Mark; DARGUSCH Marc; MACDONALD Stirling; MOORE Nicole

Cc: NIVALA Anneli

Subject: FW: Drone Purchase - Bribie Is management unit

Gday all, just a heads-up in regard to discussions we will be having soon in the RLT – see email from SR Dave Phillips below.

I am strongly supportive of drones with thermal imaging capacity being available for use for a variety of uses over QPWS estate.

Cheers

Ross Belcher

A/Manager (Moreton Bay Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P : 07 3101 2053

M: 4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

From: PHILLIPS Dave (Innisfail) <Dave.Phillips@des.qld.gov.au>

Sent: Thursday, 12 September 2019 11:17 AM

To: BELCHER Ross

Cc: MCLARTY Brendan; HARRIS Justin

Subject: Drone Purchase - Bribie Is management unit

Ross,

In the aftermath of the recent wildfire on Bribie Island, it has highlighted the importance in the use of drones for fireground assessment, and the general use in park management. The Bribie Island management unit would like to purchase a drone, for use in fire, pest and general park management.

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In researching what is now available, DJI have just released a model called – Mavic 2 Enterprise Dual - \$4520 + extras

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Both of these models have similar flight characteristics (wind, collision avoidance, flight time & range), and the purchase price is the equivalent of less than 1hr in a helicopter.

Due to the fact that we would only purchase 1 drone for prolonged use, I would like to propose that we purchase the 'Mavic 2 Enterprise Dual'.

Q: Is the agency still running in-house training for the use of drones? And what are the legal requirements?

For your consideration....



David Phillips
A/Senior Ranger, Coastal Islands
Queensland Parks & Wildlife Service
Department of Environment and Science

P: 07 3101 2050 M: ip4(6) Personal informa
34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
dave.phillips@des.qld.gov.au

NIVALA Anneli

From: BELCHER Ross
Sent: Friday, 15 November 2019 7:56 AM
To: BURNHAM Mark
Subject: RE: drone purchase, pilots and authorisation

No worries – not a priority! Cheers

From: BURNHAM Mark <Mark.Burnham@des.qld.gov.au>
Sent: Thursday, 14 November 2019 8:45 PM
To: BELCHER Ross
Subject: RE: drone purchase, pilots and authorisation

Hi Ross,
I am entrenched in the ICC at Boonah for the present SE and SW region wildfires. Will talk to you early next week. Was there minutes from the RLT as I hadn't received outcomes that Nicole was recording?

Cheers
Mark



Mark Burnham
Senior Conservation Officer- Technical Support
Coastal and Islands Region / QPWS & Partnerships
Department of Environment and Science

P 07 3164 3623
M p4(6) Personal informa
60 Mt Nebo Rd The Gap
4061 Q.



From: BELCHER Ross
Sent: Thursday, 14 November 2019 12:01 PM
To: BURNHAM Mark
Subject: drone purchase, pilots and authorisation

Gday Mark,

I cannot recall where we got to in regard to moving on with the purchase of drones, including:

- Type (make and model, etc.)
- Specifications including weight
- Pilot identification, training and authorisation
- Storage and access to images and other data
- Budget
- Any other issues.

Do you have any further information?



Cheers

Ross Belcher

A/Manager (Moreton Bay Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P : 07 3101 2053

M: b4(6) Personal inform

34 Trafalgar Street MANLY QLD 4179 | PO Box 5178 MANLY QLD 4179

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From: WRIGHT Michelle
Sent: Monday, 11 February 2019 8:29 AM
To: BULLEY Graeme
Subject: RE: Drone Usage Information Required

Hi Graeme

Thanks for the response. Much appreciated.

Do you think Minjerribah Camping/Quandamooka rangers would be wanting an input?

Thanks,

Michelle

From: BULLEY Graeme
Sent: Thursday, 7 February 2019 2:29 PM
To: WRIGHT Michelle
Subject: RE: Drone Usage Information Required

Drone Usage Survey

1. In relation to the recreational and commercial usage of drones in Queensland's Protected Areas, do you feel there is a need for a drone Operational Policy or a change in legislation or both to regulate usage? If yes, in broad terms what would that policy or legislation state? **Yes. Needs to clarify where non operational (recreational use) of drones should be to keep disturbance of visitors to a minimum by other public drone users.**
2. Where. Please specify your Management Unit area. **Flinders Beach, Main Beach in front of Campsites, swimming beaches around SLSQ flagged areas. Brown Lake, Blue Lake precincts**
3. Do you use drones (or have an intention to make use of drones) in the workplace, and if yes for what tasks and how often? Do you have a (local) written guideline on how to utilise them for this task? If yes please forward. **Yes, have used and intent to continue to use for fire operations, weed management assessments. No local guideline as yet.**
4. What. Who. Do you have any comment on commercial drone usage in your Management Unit area (e.g. any problems, specific issues, locations of concern, operators of concern, workplace health and safety issues, identifiable person or category of persons)? **No currently used by competent staff for specific purposes**
5. What. Who. Do you have any comment on recreational drone usage in your Management Unit area (e.g. any problems, specific issues, locations of concern, workplace health and safety issues, identifiable person or category of persons)? **Too close interaction and possible breach of privacy of visitors**
6. When. How frequent is the problematic usage of drones? And when is it an issue (any particular season, time of year e.g. a particular event which people want to film, hours)?
7. How. Why. If you have issues with commercial and/or recreational drone usage in your Management Unit area, how do you suggest this could be better managed? Should drone usage be permitted or not permitted in your area and why? **Commercial usage for specific management purposes should be allowed.**
8. If exclusion zones are needed in your area, please indicate where these should be. Note, on the CASA website there is a link to a mapping program where it shows advice/drone flying restrictions. Please view this for your

area and consider whether it is suitable for your needs (from a quick review it may not be adequate in certain cases). <https://casa.dronecomplier.com/external#>

9. On a scale of 1 to 5, where 1 is not urgent and 5 is very urgent, how urgent is it that we get regulation/policy on the usage of drones in your area? **3**

If you are able to please email your response back by cob 18 February that would be helpful. If you need extra time let me know that a response is on its way so I can hold off to include your views.

Regards

Graeme Bulley

Senior Ranger (A) North Stradbroke Island

Coastal and Island Parks | Queensland Parks and Wildlife Service

Department of Environment and Science

Mob ch4p4(6) Personal informatio

From: WRIGHT Michelle

Sent: Monday, 4 February 2019 8:25 AM

To: LESSONS Jay; MATTHEWS Galen; YETMAN Brendon; ENSLIN Justin; BULLEY Graeme; BEHRENDORFF Linda; HARVEY Peter; LAWTON Colin; DARGUSCH Marc; CAVENDISH Peter

Cc: SEELEITHER Jamie; MACDONALD Stirling

Subject: Drone Usage Information Required

Hi folks

Tech Support is currently assessing the need for, and the inclusions in a drone policy for our region/state. We require information from you on the specific issues in our/ your patch which would be resolved through regulation/policy, any areas where drones can be used without issue, any areas that drones should not be permitted...?

I have been receiving feedback about drone usage from rangers sporadically and have witnessed on quite a few occasions the intrusive nature of drone flying on park. I have enquired with Policy & Legislation (Protected Area Strategy & Policy) and they admit that 'further work is needed in establishing a formal position' and regional 'insight can help gain traction on how to move forward'.

I am proposing, as our region is one of the visitor hotspots for the state, that we put forth our regional opinions in order to get some movement going which would finalise a policy/position to guide the public and our staff on drone usage in our parks.

A google search has marked Queensland as the most lenient state: <https://www.reeffree.com.au/blog/view/can-i-fly-my-drone-in-over-australian-national-parks/> which depending upon your view point may be good or not so good!

If you wish to have a say for your patch can you please forward responses to the following. Please use dot points for ease of reading and data compilation. Be as specific as you feel is required, especially when it comes to naming areas of use.

Drone Usage Survey

1. In relation to the recreational and commercial usage of drones in Queensland's Protected Areas, do you feel there is a need for a drone Operational Policy or a change in legislation or both to regulate usage? If yes, in broad terms what would that policy or legislation state?

2. Where. Please specify your Management Unit area.
3. Do you use drones (or have an intention to make use of drones) in the workplace, and if yes for what tasks and how often? Do you have a (local) written guideline on how to utilise them for this task? If yes please forward.
4. What. Who. Do you have any comment on commercial drone usage in your Management Unit area (e.g. any problems, specific issues, locations of concern, operators of concern, workplace health and safety issues, identifiable person or category of persons)?
5. What. Who. Do you have any comment on recreational drone usage in your Management Unit area (e.g. any problems, specific issues, locations of concern, workplace health and safety issues, identifiable person or category of persons)?
6. When. How frequent is the problematic usage of drones? And when is it an issue (any particular season, time of year e.g. a particular event which people want to film, hours)?
7. How. Why. If you have issues with commercial and/or recreational drone usage in your Management Unit area, how do you suggest this could be better managed? Should drone usage be permitted or not permitted in your area and why?
8. If exclusion zones are needed in your area, please indicate where these should be. Note, on the CASA website there is a link to a mapping program where it shows advice/drone flying restrictions. Please view this for your area and consider whether it is suitable for your needs (from a quick review it may not be adequate in certain cases). <https://casa.dronecomplier.com/external#>
9. On a scale of 1 to 5, where 1 is not urgent and 5 is very urgent, how urgent is it that we get regulation/policy on the usage of drones in your area?

If you are able to please email your response back by cob 18 February that would be helpful. If you need extra time let me know that a response is on its way so I can hold off to include your views.

Thanks for your time. This is an important issue now and into the future and it is critical that rangers get an opportunity to input on policy which may affect management in your area.

Any queries let me know.

Thanks for your time,

Michelle



Michelle Wright

Regional Compliance Coordinator

Senior Conservation Officer | Technical Support (Compliance)

Coastal and Islands Region | Queensland Parks and Wildlife Service

Department of Environment and Science

P (07) 4302 8570 M p4(6) Personal informa

102 Lennox Street MARYBOROUGH QLD 4650 | PO Box 101 MARYBOROUGH QLD 4650

www.des.qld.gov.au

Work days: Monday – Thursday

I acknowledge that Aboriginal Peoples and Torres Strait Islander Peoples are the Traditional Owners of this country and they retain their relationship and connection to the land, sea and community.

I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.



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NIVALA Anneli

From: NIVALA Anneli
Sent: Tuesday, 10 September 2019 11:27 AM
To: BULLEY Graeme
Subject: RE: * Due 9 am Wed 11 Sept * Management of drones



I'd say no, but thank you for responding!

From: BULLEY Graeme <Graeme.Bulley@des.qld.gov.au>
Sent: Tuesday, 10 September 2019 11:13 AM
To: NIVALA Anneli
Subject: RE: * Due 9 am Wed 11 Sept * Management of drones

Anneli,
QYAC have a drone which is used on NSI. Does that need to go in? It is not joint management owned.

Regards

Graeme Bulley
Senior Ranger North Stradbroke Island
Coastal and Islands Region / QPWS & Partnerships
Department of Environment and Science

Mob sch4p4(6) Personal information

From: NIVALA Anneli
Sent: Tuesday, 10 September 2019 10:31 AM
To: LESSONS Jay; BULLEY Graeme; PHILLIPS Dave (Innisfail); BELCHER Ross
Cc: DOWLING Roland; NEUMANN Rusty; KARKLIS Anthony; MCLARTY Brendan
Subject: FW: * Due 9 am Wed 11 Sept * Management of drones

Howdy all,

We are required to compile a list of MBA drones for the DDG.

These need to be listed in [this spreadsheet](#) by 9am tomorrow morning (Wednesday 11th September).

Kind regards,

Anneli Nivala
Moreton Bay Area Administration Officer
Coastal and Islands Region
QPWS and Partnerships | Dept. of Environment and Science
07 3101 2078 | PO Box 5178 Manly QLD 4179
34 Trafalgar Street Manly QLD 4179
<http://www.des.qld.gov.au/>

From: Corro QPWS gbrmci CIR <QPWSgbrmciCIR.Corro@des.qld.gov.au>
Sent: Monday, 9 September 2019 3:03 PM

To: NIVALA Anneli; JENKINSON Kay; EMBREY Teena
Cc: Corro QPWS gbrmci CIR
Subject: * Due 9 am Wed 11 Sept * Management of drones

Hi All,

Could you please respond to the below request for a list of all the CIR drones using the link below.

All responses including Nil responses to the Corro Box by **9.00 am Wed 11 Sept?**

Thanks,

K



Keshini Canagasuriam
Regional Administration Officer
Coastal and Islands Region | QPWS & Partnerships
Department of Environment and Science

P (07) 3164 3609
60 Mt Nebo Road, The Gap QLD 4061
www.des.qld.gov.au

From: Corro DES QPWS GBRMCI <DESQPWSGBRMCI.Corro@des.qld.gov.au>
Sent: Monday, 9 September 2019 2:31 PM
To: Corro QPWS gbrmci CIR; Corro QPWS gbrmci GBR MPR
Cc: GRUER Jo; Corro DES QPWS GBRMCI
Subject: FW: Due cob 16 Sep 2019 - Management of drones

Hi all,

Below request for your action please

Link [here](#)

Due to Corro GBRMCI with RD endorsement COB this Thursday 12 September.

Many thanks,
Anita

From: ABURN Mark <Mark.Aburn@des.qld.gov.au>
Sent: Monday, 9 September 2019 2:10 PM
To: Corro DES QPWS Southern; Corro DES QPWS GBRMCI; Corro DES QPWS Northern; Corro DES QPWS WTS
Cc: CAMBOURN Neil; THOMPSON Lucy; Corro DES QPWS ADG
Subject: Due cob 16 Sep 2019 - Management of drones

Hi all,



As per the request below, could you please coordinate a response from your region ensuring the appropriate information is entered into **all of the tabs** in the SharePoint document with ED endorsement by cob Monday 16 September 2019.

WTS – please double check that your information is correct/current and enter in any additional items.

Please note – This request relates to all drones, not just those used in Marine Parks

Kind regards,



Mark Aburn
Principal Advisor
Office of the Assistant Director-General
Management and Operations | QPWS & Partnerships
Department of Environment and Science

P 07 3199 7526
Level 5, 400 George Street Brisbane QLD 4000
PO Box 15187 CITY EAST QLD 4000

Howdy all,

We require a list of our drones within MBA to report back to the

From: THOMPSON Lucy <Lucy.Thompson@des.qld.gov.au>

Sent: Monday, 9 September 2019 10:30 AM

To: CAMBOURN Neil; WEINERT Nick; KLAASSEN Ben; KENYON Kirstin; DELZOPPO Lindsay

Cc: HEAD Damien

Subject: RE: RE Management of drones in Marine Parks

Hey Everybody

Following on to this, Ben asked that I find the list of Drones that we have.

Please see link [here](#) to a departmental register of Drones, pilots and Divisional uses.

Lucy

Lucy Thompson

Manager, Executive Services

Office of the Deputy Director-General | QPWS and Partnerships

Department of Environment and Science

P 07 3330 6239 M (6) Personal infor

Level 5, 400 George St, Brisbane Qld 4000

PO Box 2454, Brisbane Qld 4001



Proudly accredited
by White Ribbon





From: BRUGMANN Tanja <Tanja.Brugmann@des.qld.gov.au>

Sent: Tuesday, 3 September 2019 3:28 PM

To: HEAD Damien

Subject: RE Management of drones in Marine Parks

GBRMPA guidelines below. We manage the State MP consistent with these guidelines:

Filming and photography guidelines including use of drones - <http://www.gbrmpa.gov.au/media-room/photography,-filming-and-sound-recording-in-the-great-barrier-reef-marine-park>

Activity Guidelines including use of drones:

http://www.gbrmpa.gov.au/_data/assets/pdf_file/0012/248988/Recording-activity-assessment-guidelines.pdf

Refer to 18. AND 19.

Low impact recording:

Where using remotely operated vehicles (such as drones and ROVs):

- i. Aerial units weigh less than five (5) kilograms (including equipment).
- ii. ii. Surface or submarine units weigh less than 25 kilograms (including equipment).
- iii. iii. Aerial units do not operate within aircraft exclusion areas (see Location-specific assessment guidelines).
- iv. iv. Units do not approach closer than:
 - a. 20 metre radius from marine turtles;
 - b. 30 metre radius from crocodiles;
 - c. 30 metre radius from dugongs;
 - d. 75 metre radius from seabirds.¹
- v. Requirements and guidelines under other legislation are adhered to, including:
 - a. For aerial units -- Civil Aviation Safety Authority (CASA)
 - b. For surface and submarine units – Australian Maritime Safety Authority.

20. Recording which cannot comply with all of the above principles is likely to require GBRMPA's 20. permission.

Remotely operated and autonomous vehicles (drones, ROVs, AUVs, etc)

See the section on Low impact recording for guidance on remote/autonomous vehicle use that may not require permission.

25. If permission is required, the assessment considers the same matters as for general recording, and also:

- a. the purpose of the filming – use of a drone that poses a greater risk (of a larger size or in a sensitive area) will generally only be considered if the filming will significantly enhance scientific understanding or public appreciation of the Marine Park
- b. any requests for landing(s)
- c. the operator's qualifications and experience, including their knowledge of the proposed location
- d. the risks posed by the device should it contact sensitive habitats or species or breach exclusion limits
- e. the risks posed by the device should it be lost (for example, whether the device may leach toxic chemicals).

Queensland considerations

26. In addition to GBRMPA's requirements, Queensland's Operational Policy on commercial filming and photography defines a 'major production' as 'commercial filming or photography activities that ...require more intensive management in order to keep impacts...within acceptable limits'.

Under this definition such activities generally involve: 'a crew of 10 or more people; and/or the use of significant infrastructure or equipment; and/or some level of exclusive occupation of a sites or sites ...for three days or more.'

27. Where the activity is proposed to be conducted partly in Queensland only jurisdiction (for example, island national parks and intertidal zones), it will usually be managed under a Commercial Activity Agreement negotiated between the State of Queensland and the proponent. In these cases, permission may still be required from GBRMPA for activities that are proposed to be undertaken in the Marine Park, in support of the terrestrial component. GBRMPA's assessment for such permissions would require consideration of the conditions imposed in the Commercial Activity Agreement to ensure any permission granted remains consistent with the relevant agreement.

NIVALA Anneli

From: NIVALA Anneli
Sent: Wednesday, 11 September 2019 8:45 AM
To: Corro QPWS gbrmci CIR
Cc: BELCHER Ross
Subject: RE: * Due 9 am Wed 11 Sept * Management of drones
Attachments: RE: * Due 9 am Wed 11 Sept * Management of drones; RE: * Due 9 am Wed 11 Sept * Management of drones; RE: * Due 9 am Wed 11 Sept * Management of drones

Good morning,

Please not nil drones to report for MBA

Tags Find Add-ins OneNote

Reply Reply All Forward IM



Tue 10/09/2019 11:26 AM

PHILLIPS Dave (Innisfail)

RE: * Due 9 am Wed 11 Sept * Management of drones

o NIVALA Anneli

i You replied to this message on 10/09/2019 11:29 AM.

This message is part of a tracked conversation. Click here to find all related messages or to open the original flagged message.

No drones for Bribie or SSI, but we would like one.....



David Phillips
A/Senior Ranger, Coastal Islands
Queensland Parks & Wildlife Service
Department of Environment and Science

P: 07 3101 2050 M: (b) (6) Personal information
34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
dave.phillips@des.qld.gov.au

 RE: * Due 9 am Wed 11 Sept * Management of **drones**

To  BULLEY Graeme

 This message is part of a tracked conversation. Click here to find all related messages or to open the original flagged message.

I'd say no, but thank you for responding!

From: BULLEY Graeme <Graeme.Bulley@des.qld.gov.au>

Sent: Tuesday, 10 September 2019 11:13 AM

To: NIVALA Anneli

Subject: RE: * Due 9 am Wed 11 Sept * Management of **drones**

Anneli,

QYAC have a drone which is used on NSI. Does that need to go in? It is not joint management owned.

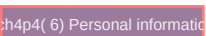
Regards

Graeme Bulley

Senior Ranger North Stradbroke Island

Coastal and Islands Region / QPWS & Partnerships

Department of Environment and Science

Mob  (6) Personal information

 Reply  Reply All  Forward  IM



Tue 10/09/2019 2:35 PM

LESSONS Jay

RE: * Due 9 am Wed 11 Sept * Management of **drones**

To  NIVALA Anneli

Cc  SOWERBY Jody

 This message is part of a tracked conversation. Click here to find all related messages or to open the original flagged message.

No **drones** possessed by Moreton and Heritage Parks thanks Anneli.

Also, please include Jody in SR intended corro for the next 4 weeks.

Thank you!

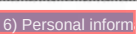


Jay Lessons

A/Principal Project Officer – Moreton Bay

Queensland Parks and Wildlife Service & Partnerships | Coastal and Islands Region

Department of Environment and Science

M  (6) Personal information

E jay.lessons@des.qld.gov.au

www.des.qld.gov.au



From: NIVALA Anneli <Anneli.Nivala@des.qld.gov.au>

Kind regards,



Anneli Nivala

Moreton Bay Area Administration Officer
Coastal and Islands Region

QPWS and Partnerships | Dept. of Environment and Science
07 3101 2078 | PO Box 5178 Manly QLD 4179

34 Trafalgar Street Manly QLD 4179

<http://www.des.qld.gov.au/>

From: Corro QPWS gbrmci CIR <QPWSgbrmciCIR.Corro@des.qld.gov.au>

Sent: Monday, 9 September 2019 3:03 PM

To: NIVALA Anneli; JENKINSON Kay; EMBREY Teena

Cc: Corro QPWS gbrmci CIR

Subject: * Due 9 am Wed 11 Sept * Management of drones

Hi All,

Could you please respond to the below request for a list of all the CIR drones using the link below.

All responses including Nil responses to the Corro Box by **9.00 am Wed 11 Sept?**

Thanks,

K



Keshini Canagasuriam

Regional Administration Officer

Coastal and Islands Region | QPWS & Partnerships

Department of Environment and Science

P (07) 3164 3609

60 Mt Nebo Road, The Gap QLD 4061

www.des.qld.gov.au

From: Corro DES QPWS GBRMCI <DESQPWSGBRMCI.Corro@des.qld.gov.au>

Sent: Monday, 9 September 2019 2:31 PM

To: Corro QPWS gbrmci CIR; Corro QPWS gbrmci GBR MPR

Cc: GRUER Jo; Corro DES QPWS GBRMCI

Subject: FW: Due cob 16 Sep 2019 - Management of drones

Hi all,

Below request for your action please

Link [here](#)

Due to Corro GBRMCI with RD endorsement COB this Thursday 12 September.



Many thanks,
Anita

From: ABURN Mark <Mark.Aburn@des.qld.gov.au>

Sent: Monday, 9 September 2019 2:10 PM

To: Corro DES QPWS Southern; Corro DES QPWS GBRMCI; Corro DES QPWS Northern; Corro DES QPWS WTS

Cc: CAMBOURN Neil; THOMPSON Lucy; Corro DES QPWS ADG

Subject: Due cob 16 Sep 2019 - Management of drones

Hi all,

As per the request below, could you please coordinate a response from your region ensuring the appropriate information is entered into **all of the tabs** in the SharePoint document with ED endorsement by cob Monday 16 September 2019.

WTS – please double check that your information is correct/current and enter in any additional items.

Please note – This request relates to all drones, not just those used in Marine Parks

Kind regards,



Mark Aburn

Principal Advisor

Office of the Assistant Director-General

Management and Operations | QPWS & Partnerships

Department of Environment and Science

P 07 3199 7526

Level 5, 400 George Street Brisbane QLD 4000

PO Box 15187 CITY EAST QLD 4000

From: THOMPSON Lucy <Lucy.Thompson@des.qld.gov.au>

Sent: Monday, 9 September 2019 10:30 AM

To: CAMBOURN Neil; WEINERT Nick; KLAASSEN Ben; KENYON Kirstin; DELZOPPO Lindsay

Cc: HEAD Damien

Subject: RE: RE Management of drones in Marine Parks

Hey Everybody

Following on to this, Ben asked that I find the list of Drones that we have.

Please see link [here](#) to a departmental register of Drones, pilots and Divisional uses.

Lucy

Lucy Thompson

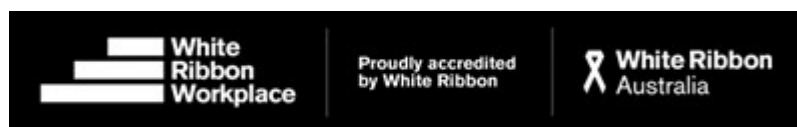
Manager, Executive Services

Office of the Deputy Director-General | QPWS and Partnerships

Department of Environment and Science

P 07 3330 6239 M p4(6) Personal inform

Level 5, 400 George St, Brisbane Qld 4000



From: BRUGMANN Tanja <Tanja.Brugmann@des.qld.gov.au>

Sent: Tuesday, 3 September 2019 3:28 PM

To: HEAD Damien

Subject: RE Management of drones in Marine Parks

GBRMPA guidelines below. We manage the State MP consistent with these guidelines:

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 - b. 30 metre radius from crocodiles;
 - c. 30 metre radius from dugongs;
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Queensland considerations

26. In addition to GBRMPA's requirements, Queensland's Operational Policy on commercial filming and photography defines a 'major production' as 'commercial filming or photography activities that ...require more intensive management in order to keep impacts...within acceptable limits'.

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27. Where the activity is proposed to be conducted partly in Queensland only jurisdiction (for example, island national parks and intertidal zones), it will usually be managed under a Commercial Activity Agreement negotiated between the State of Queensland and the proponent. In these cases, permission may still be required from GBRMPA for activities that are proposed to be undertaken in the Marine Park, in support of the terrestrial component. GBRMPA's assessment for such permissions would require consideration of the conditions imposed in the Commercial Activity Agreement to ensure any permission granted remains consistent with the relevant agreement.

NIVALA Anneli

From: NIVALA Anneli
Sent: Thursday, 7 November 2019 12:46 PM
To: Corro QPWS gbrmci CIR
Cc: BELCHER Ross
Subject: RE: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019



Queensland
Government

Nil for MBA please, no drones to be added to the register – thank you

-Anneli

Anneli Nivala

Moreton Bay Area Administration Officer
Coastal and Islands Region

QPWS and Partnerships | Dept. of Environment and Science
07 3101 2078 | PO Box 5178 Manly QLD 4179

34 Trafalgar Street Manly QLD 4179

<http://www.des.qld.gov.au/>

From: Corro QPWS gbrmci CIR <QPWSgbrmciCIR.Corro@des.qld.gov.au>
Sent: Monday, 4 November 2019 12:28 PM
To: EMBREY Teena; CANAGASURIAM Keshini; NIVALA Anneli
Cc: Corro QPWS gbrmci CIR
Subject: FW: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi Folks,

Please let me know if I am forwarding to the correct parties.

Hi teams

ACTION: Please provide/update information in all worksheets (use of drones in des, definitions, drones register, drone operator) in the DES drone register located [here](#). Provide nil response or email confirmation to Corro CIR when the task is completed

DUE DATE: To Corro CIR by 10 am Monday 11 November 2019

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Kind regards,
Elle



Queensland
Government

Elle Hart

A/Regional Administration Officer, Coastal and Islands Region
GBRMC | QPWS & Partnerships
Department of Environment and Science

P: 07 3101 2058

34 Trafalgar Street, Manly
PO Box 5178, Manly Qld 4179
Elle.Hart@des.qld.gov.au

From: Corro DES QPWS GBRMCI
Sent: Monday, 4 November 2019 12:00 PM
To: Corro DES QPWS GBRMCI; Corro QPWS gbrmci CIR; Corro QPWS gbrmci GBR MPR
Subject: FW: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi teams

ACTION: Please provide/update information in all worksheets (use of drones in des, definitions, drones register, drone operator) in the DES drone register located [here](#). Provide nil response or email confirmation to Corro GBRMCI when the task is completed
DUE DATE: To Corro GBRMCI by 12 noon Monday 11 November 2019

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Cheers

Jo

Jo Gruer

Principal Advisor – GBR, Marine Parks, Coastal and Islands
Management and Operations | QPWS & Partnerships
Department of Environment and Science, P 07 3199 7521

From: ABURN Mark <Mark.Aburn@des.qld.gov.au>
Sent: Friday, 1 November 2019 10:07 AM
To: Corro DES QPWS Park Services; Corro DES QPWS GBRMCI; Corro DES QPWS Southern; Corro DES QPWS Northern; Corro DES QPWS WTS
Cc: Corro DES QPWS ADG
Subject: FOR ACTION - Management of Drones - Due to Corro ADG by cob 11 Nov 2019

Hi all,

The request below was originally sent out when the recent bushfire situation was ramping up, so obviously we could only devote a certain amount of attention to this request.
Could I please ask that your teams re-visit the spreadsheet and update any missing data (particularly barcode and asset numbers), including entering in the data of any new drones that have been purchased since September 2019. Updates should be done via the link below.

Management of drones

ACTION: Further to the email requests below, could you please submit your response ensuring the appropriate information is entered into **all of the tabs** in the SharePoint document. [Please see link here to a departmental register of Drones, pilots and Divisional uses.](#)

Please note – This request relates to ALL drones, not just those used in Marine Parks.

Please have your ED approvals to Corro ADG by cob Monday 11th of November 2019.

Kind regards,



Mark Aburn
Principal Advisor
Office of the Assistant Director-General
Management and Operations | QPWS & Partnerships
Department of Environment and Science

P 07 3199 7526
Level 5, 400 George Street Brisbane QLD 4000
PO Box 15187 CITY EAST QLD 4000

From: BELCHER Ross
Sent: Tuesday, 30 April 2019 1:50 PM
To: Coastal Islands Permits
Cc: LAWTON Colin; MCRAE Moyra
Subject: RE: For endorsement: RE: Permit amendment assessment - sch4p4(6) Personal information



Endorsed

Ross Belcher

Principal Ranger (Great Sandy Area)

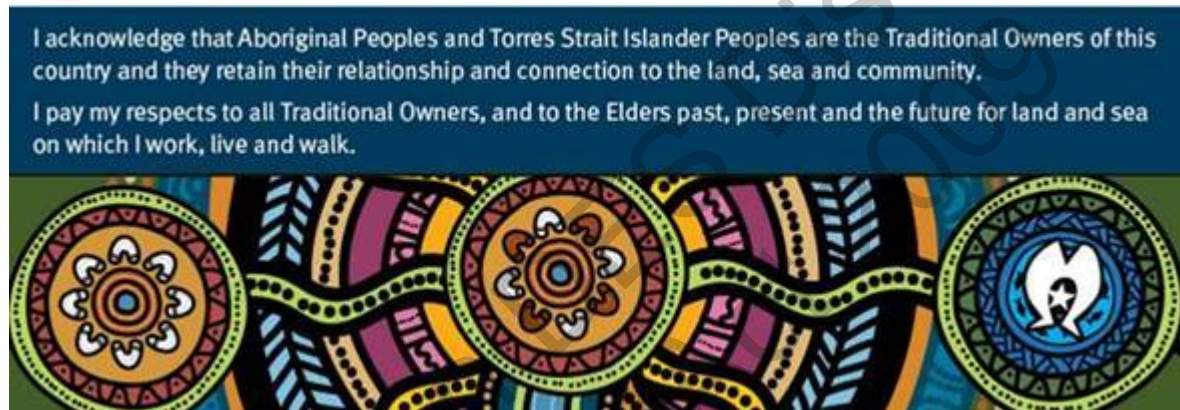
Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P 07 4302 8590

102 Lennox Street, Maryborough, QLD 4650

P.O. Box 101, Maryborough, QLD 4650



From: MCRAE Moyra <Moyra.McRae@des.qld.gov.au>

Sent: Tuesday, 30 April 2019 1:02 PM

To: BELCHER Ross

Cc: LAWTON Colin; Coastal Islands Permits

Subject: For endorsement: RE: Permit amendment assessment - sch4p4(6) Personal information

Hi Ross

This is an amendment to an existing permit for koala detection using trained dogs. She now wants to use thermal imagery using drones as another means of detection.

Col is fine with it with a legitimate observation. However the applicant states "The RPAS (drone) is operated following strict CASA-approved procedures for night flights b sch4p4(6) Personal information an experienced operator with current Remote Pilot License (RePL) and Remote Operator's Certificate (ReOC)".

Reply email to Coastal Island Permits is fine if endorsed.

Thanks

Moyra

From: LAWTON Colin <Colin.Lawton@des.qld.gov.au>

Sent: Tuesday, 30 April 2019 11:42 AM

To: MCRAE Moyra

Cc: HOEY Kieran

Subject: RE: Permit amendment assessment - sch4p4(6) Personal information

Hi Moyra

All ok or me although I don't know how they meet CASA regs. I thought drones could only be flown with a direct line of sight which will be difficult in the dark

Regards Col



Colin Lawton

Senior Ranger – Cooloola

Coastal and Islands Region

Queensland Parks and Wildlife Service

Department of Environment and Science

P 07 54869930 | E colin.lawton@des.qld.gov.au

Rainbow Beach Road

PO Box 44, Rainbow Beach 4581

From: MCRAE Moyra

Sent: Tuesday, 30 April 2019 10:19 AM

To: LAWTON Colin

Cc: HOEY Kieran

Subject: FW: Permit amendment assessment - sch4p4(6) Personal information

Hi Col

This is an amendment to sch4p4(6) Personal information koala detection dog permit. She now wants to use thermal imagery using drones as another means of detection. They are following CASA regs and as per amendment request have a few methods to help reduce disturbance.

Any concerns?

Moyra

From: Coastal Islands Permits <CoastalIslandPermits@des.qld.gov.au>

Sent: Tuesday, 16 April 2019 8:22 AM

To: MCRAE Moyra; ESDAILE John

Cc: KRIEGER George; DAVIES Matt; SEELEITHER Jamie

Subject: FW: Permit amendment assessment - Romane Cristescu

Hi all

PTUKI amendment request from (6) Personal info o conduct thermal imaging of koalas using a drone.

Thanks

Renae

From: NEWMAN Gareth <Gareth.Newman@des.qld.gov.au>

Sent: Monday, 15 April 2019 4:13 PM

To: Coastal Islands Permits

Cc: Southern Permits Team; NEWMAN Gareth

Subject: Permit amendment assessment - sch4p4(6) Personal information

Good afternoon,

Please find attached a request for your assessment of an amendment to a PTUKI, a PTC and SPP under the associated legislation to undertake include drone based thermal imaging into the current Koala detection studies in the below QPWS&P managed areas:

- Cooloola (Noosa River) Resources Reserve
- Cooroibah Conservation Park
- Great Sandy National Park, Cooloola Section
- Bribie Island National Park and Recreational Area
- Coolloothin Conservation Park
- Goat Island (Noosa River) Conservation Park
- Sheep Island Conservation Park
- Great Sandy Conservation Park
- Great Sandy National Park, Cooloola Section (Northern Tip)
- Naree Budjong Djara National Park

The requested permit is for scientific purposes and will authorise the continued research into koala populations within Queensland's protected and non-protected areas

I have attached the following documents for your perusal:

- Assessment form template
- Amendment request from applicant
- Current approved permits (PTUKI, SPP, PTC)
- Draft Permits (PTUKI, SPP, PTC)
- Draft Information Notice

It would be most appreciated if you could consider the proposed arrangements and return the attached assessment form with your comments/assessment to parkaccess@npsr.qld.gov.au by 06/4/2019

Please let me know if there are other relevant stakeholders that need to be involved or if you have any concerns.

Regards,

Gareth

Gareth Newman

A/ Senior Project Officer – Assessments and Approvals

Permissions Management

QPWS & Partnerships

Department of Environment and Science

Ph: 3199 7586

Gareth.newman@des.qld.gov.au

From: BELCHER Ross
Sent: Wednesday, 5 June 2019 3:34 PM
To: KLEKAR John
Cc: HAYWOOD Caitlin; YETMAN Brendon; NOVAK Dan
Subject: RE: PR Approval sought - iPad Purchase for drone.



Thanks John, approved. Cheers, Ross

Ross Belcher

Principal Ranger (Great Sandy Area)

Coastal and Islands Region | Queensland Parks and Wildlife Service and Partnerships

Department of Environment and Science

P 07 4302 8590

102 Lennox Street, Maryborough, QLD 4650

P.O. Box 101, Maryborough, QLD 4650



From: KLEKAR John <John.Klekar@des.qld.gov.au>
Sent: Wednesday, 5 June 2019 11:46 AM
To: BELCHER Ross
Cc: HAYWOOD Caitlin; YETMAN Brendon; NOVAK Dan
Subject: PR Approval sought - iPad Purchase for drone.

Hi Ross,

Approval is sought to purchase an iPad Air 2 Tablet funded by current Dingo Management Funding and through Departmental IT services

The Tablet will be dedicated to the operational use of the drone that will be purchased this FYR.

The iPad Air 2 Tablet has been recommended by staff experienced with operating drones to be more compatible for drone use.

Regards



John Klekar

Ranger

Coastal and Islands Region, QPWS and Partnerships

Department of Environment and Science

P 07 4302 8555 Mob: 4(6) Personal Inform

102 Lennox Street, Maryborough Queensland 4650

PO Box 101, Maryborough Queensland 4650

I acknowledge that Aboriginal peoples and Torres Strait Islands peoples are the traditional Owners of this country and they retain their relationship and connection to the land, sea and community.

I pay my respects to all Traditional Owners, and to the Elders past, present and the future for land and sea on which I work, live and walk.

NIVALA Anneli

From: Darren Burns <darren.burns@qyac.net>
Sent: Tuesday, 21 August 2018 9:28 AM
To: CROUCH Daniel
Cc: KARKLIS Anthony; BULLEY Graeme
Subject: Re: QFRS Drone

For sure
Which drone

Thank you
Darren burns
Joint management coordinator
Quandamooka Yoolooburabee Aboriginal corporation
Sent from my iPhone

On 21 Aug 2018, at 9:09 AM, CROUCH Daniel <Daniel.Crouch@des.qld.gov.au> wrote:

Hello Darren,

QFRS have suggested to us if a Drone would be helpful in getting a closer look at the Fire behaviour at Blakely swamp. Would we have QYAC or your support to conduct this exercise please.

Regards



Daniel Crouch
Ranger
North Stradbroke Island (A)
Coastal and Island Parks | Queensland Parks and Wildlife Service
Department of Environment and Science -----

Mob sch4p4(6) Personal information -----

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