Ref: PA19/586

To: Chief Executive Officer – Shire Serpentine Jarrahdale

Attention: Development Services

In response to your letter dated 11th July 2019 regarding the above application. I have the following comments and questions regarding the application:

1. In regard to the landfill does this apply to more landfill or what has currently been trucked and placed on the site? Over the last 6 months there have been 100+ truckloads of landfill already loaded on the site. This has raised the land approximately .5 of a meter so far. As a result flooding of my property on the side adjoining this site has been exacerbated, leaving my pastureland flooded and useless for weeks. I have lived here for 10 years and never experienced flooding of this level until the applicants site began bringing in excessive amounts of landfill and raising the level of the land.

2. Removal of vegetation is also a major factor in the abnormal flooding of adjoining neighbours. Currently at least 50% of the original vegetation on the site has been removed, this together with the raised soil levels of the site will no doubt effect the water table and drainage levels. I request further information on what has been approved regarding this matter.

3. Is there a requirement for the applicant to implement appropriate drainage prior to building up the site with landfill? Currently there has been no evidence that any new drainage has been implemented to accommodate the rise in the land height.

4. What is to be done by the applicant to reduce dust and noise during the delivery and compacting of landfill? For 6 months we have been subjected to extreme dust from the site from the landfill, according to the planning scheme these issues should have been addressed prior to any fill being delivered to the site. What will be implemented to assure the neighbouring properties are not adversely affected by this issue?

5. Animal welfare is also an issue, what is being put in place by the applicant to ensure animals and livestock on neighbouring properties is not affected?

18 July 2019

Shire of Serpentine
6 Paterson Street
MUNDIJONG WA 6123

Re: Development Application – Lot 401, 49 McKenna Drive, Cardup – Retrospective Cleanfill

To whom it may concern,

I am writing to provide feedback in relation to this application citing some concerns around drainage.

We moved into 51 McKenna Drive on 15 March 2019 and at the time of purchasing the property, we were aware that the property would be subject to some flooding during winter. On 4 July we had a substantial amount of rain which resulted in extensive flooding on our property. In my opinion, this flooding was made worse due to the amount of fill that has been placed on the applicant's driveway to the north of our property and to the east (rear). I have attached photos taken on 4 July of the flooding along the fence line which separates our property and 49 McKenna Drive.

The water run off from this driveway is currently being removed via a drain that has been dug along the fence line on our property. The runoff on the other side of the driveway is also causing flooding on the neighbouring property of 43 McKenna Drive. There has been no attempt made by the applicant install any type of drainage system on his property to negate flooding issues to neighbouring properties. I did give consideration to digging a drain along our fence line at the rear of our property to alleviate the runoff problem but I don't believe this should be our responsibility.

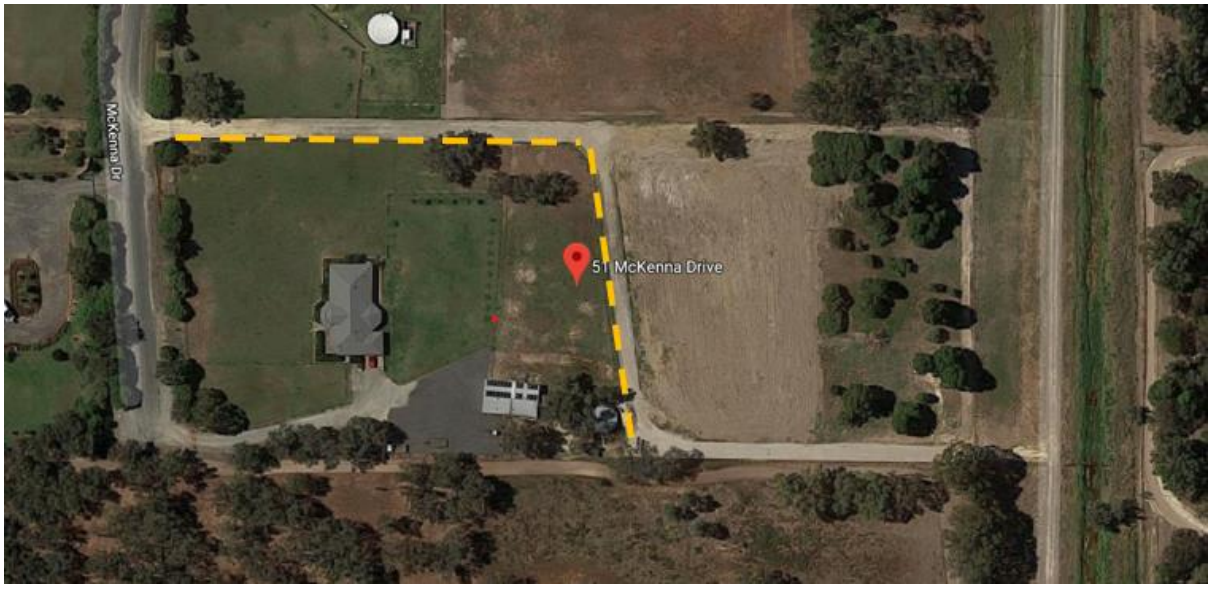
If possible, we would ask that the applicant be made responsible for installing separate drainage on his property, particularly along the eastern and northern boundaries of the fence line adjoining our properties to alleviate excess run off (Attachment A). This drain would also need to encompass the run off that is occurring from the fill area that has been placed behind the applicant's proposed shed site and next to our rain water tank. There is evidence of runoff from the driveway area entering our property around the rain water tank.

Can we also please suggest that the shire conducts a review of the drain at the front of our property to ensure that run off can be efficiently removed. As you can see in the photo marked 'Front of 51 McKenna Drive' there is excess water build up that wasn't being effectively removed by the current drainage system in place.

Should you wish to discuss the matter further, I am available to meet with representatives from your office on-site later this week or next week.

Yours faithfully,

Attachment A



Yellow line shows where we recommend drainage being installed along adjoining fence line

Attachment B

Looking down fence line adjoining our property and applicant's driveway towards McKenna Drive

Attachment C

McKenna Drive looking towards north west corner of 51 McKenna Drive. Applicants driveway in background

Attachment D

Photo on left shows eastern fence line where we propose applicant installs drainage. Photo on right gives an indication of height of applicant's driveway and slope of water runoff onto our property

Government of Western Australia
Department of Water and Environmental Regulation

Your ref: PA19/586
Our ref: PA28159
DWERDT178202
Enquiries: Mark Hingston

Shire of Serpentine Jarrahdale
6 Paterson Street
Mundijong, WA 6123

Attention: Ryan Fleming

Dear Ryan

Re: **Lot 401 McKenna Drive, Cardup – Retrospective Cleanfill**

Thank you for the abovementioned referral dated 11 July 2019. The Department of Water and Environmental Regulation (DWER) has reviewed the application and provides the following advice.

Floodplain Management
The Department of Water and Environmental Regulation provides advice and recommends guidelines for development on floodplains with the object of minimising flood risk and damage.

The Birrega and Oaklands Flood Study shows that the general area is affected by flooding with the 1 in 100 (1%) AEP flood level estimated to be approximately 17.3 m AHD.

When development is proposed within the floodplain our department assesses each proposal based on its merits and the factors examined include depth of flooding, velocity of flow, its obstructive effects on flow, possible structural and potential flood damage, difficulty in evacuation during major floods and its regional benefit.

With regard to this proposal the following comments are provided:

- Our regional scale mapping shows that the pre-development flood depths during 1% AEP flood are expected to be shallow (less than 0.3 m deep);
- Minimum habitable floor levels of 17.8 m AHD will provide adequate flood protection.
- Development (ie, dwellings, buildings etc) should be setback (~ 100 metres) from the waterway at the rear of the property to provide some protection against the erosive velocities in the vicinity of a potential levee breach.

Kwinana Peel Region
107 Breakwater Parade Mandurah Ocean Marina Mandurah Western Australia 6210
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www.dwer.wa.gov.au

- The proposed (retrospective) development (ie, fill) on the Lot has the potential to effect local overland flow / storage with regard to the local stormwater drainage;
- On its own the proposal will not affect the general flooding regime. However, the cumulative effect of similar developments on other lots in the area has the potential to increase flood levels and channelise flows resulting in potential erosion issues.
- Solid fencing could also impact on the overland flow/storage and it is recommended that fencing should allow for the free passage of overland flow.
- Access to the Lot may be affected during major flow events with water overtopping access roads.

It should be noted that failure to adhere to these recommendations will result in a greater exposure to risks of flood damage.

Please note that this advice is related to major flooding only and other planning issues, such as environmental and ecological considerations, may also need to be addressed.

Fill
Under the *Environmental Protection Amendment Regulations 2018* (gazetted 27 April 2018), a premises where only 'clean fill' and/or 'uncontaminated fill' has ever been buried does not require a works approval or licence under the *Environmental Protection Act 1986* (EP Act), where 'clean fill' and 'uncontaminated fill' meet the definitions in the *Landfill Waste Classification and Waste Definitions 1996 (as amended 2018).* To be considered 'uncontaminated fill' a material must also meet the contamination criteria and testing protocols set out in Tables 6 and 7 of the Landfill Waste Classification and Waste Definitions.

If the fill does not meet the definition of clean or uncontaminated fill its use may then meet the description of prescribed premises under Schedule 1 of the *Environmental Protection Regulations 1987* and consequently be subject to the works approval and licensing provisions of Part V Division 3 of the EP Act and the levy provisions of the *Waste Avoidance and Resource Recovery Levy Act 2007* and its Regulations.

Category 63 – Class 1 inert landfill may apply and is defined as:

> Premises (other than clean fill premises) on which waste (as determined by reference to the waste type set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer and as amended from time to time) is accepted for burial.

The threshold for an activity falling within Category 63 is 500 tonnes per year. The volume of fill and its source is not specified in the documentation provided.

Fill material or fill importation is a potentially contaminating activity, as specified in the guideline 'Assessment and Management of Contaminated Sites' (Department of Environmental Regulation 2014). The applicant should also be aware of the general provisions of the EP Act to not cause environmental harm or pollution.

If you have any queries relating to the above matter please contact Mark Hingston at DWER's Mandurah office on 9550 4222.

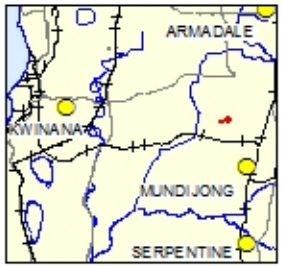
Yours sincerely

Brett Dunn
Program Manager – Land Use Planning
Peel Region

17 July 2019

Lot 401 McKenna Drive CARDUP

LOCALITY MAP



LEGEND

- Lot 401 McKenna Drive
- 1 in 100 (1%) AEP Floodplain
- Levee
- 100yr ARI Flood contours (m AHD)
- 1m LIDAR Contours
- Road Centrelines, DLI

N

0 10 20 30
Metres

Datum and Projection Information
Vertical Datum: Australian Height Datum (AHD71)
Horizontal Datum: GDA94 MGAz50
Projection: Universal Traverse Mercator (UTM)
Spheroid: Geodetic Reference System (GRS80)

Project Information
Client: Mark Hingston
Map Author: Lidia Boniecka
Task ID: 81305
Compilation date: 15/07/2019
Edition: Version 1

SOURCES

The Department of Water acknowledges the following datasets and their custodians in the production of this map:

Railways - Landgate - 03/03/2010
Road Centrelines, DLI - Landgate - 01/11/2014
Spatial Cadastral Database - Landgate - 01/10/2014
Base Cadastral Plan Central Lug (Gen 40) - Landgate 2017

Government of Western Australia
Department of Water and Environmental Regulation

This map is a product of the Department of Water and Environmental Regulation.
Assessment & Classification was granted on 02/07/2015.

This map was produced with the intent that it be used for display purposes at the scale of 1:5,000 when printing at A4.

While the Department of Water and Environmental Regulation has made all reasonable efforts to ensure the accuracy of this data, the department accepts no responsibility for any inaccuracies and persons relying on this data do so at their own risk.

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