

Attachments: 15840- Hydrology Assessment - Catchment.pdf

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Hi all,

Apologies for the delay in getting these across to you. Comments on the surface water drainage element of the application below...

The documents provided are a desktop capacity assessments of the on/offsite drainage based on drawings provided by RML. The assessment is unlikely to take in to account the current state of repair or capacity of surface water features across the site as well as any receptor drainage systems. As Alan has mentioned previously, a drainage strategy for the entire site is required to compliment the planning application. The strategy should take in to account condition and capacity of what's been constructed on site and should also consider the apparent omissions from phase 1. General comments on each catchment based on the information/drawings provided as follows:

Morlais A culvert catchment

- It is unclear what is currently draining to this system and contour grips and channels indicated on the drainage plan have been altered. Further information on which drainage systems are currently entering the lagoons will be required.
- The current condition/capacity of the lagoons to the west of the catchment are unknown. Are any clearance and landscaping works required to ensure adequacy?
- Survey information has been provided on the receiving watercourse at Goatmill Road although it is unclear if this is historic data or based on current conditions.

Morlais B culvert catchment

- The catchment appears inaccurate and doesn't reflect as constructed contour grips and channels. A further review of the catchment based on actual construction is required.
- Survey information has been provided on the receiving watercourse at Goatmill Road although it is unclear if this is historic data or based on current conditions.
- Six soakaways are still indicated on the drainage plan with no evidence of suitability for managing runoff. It is unclear if the soakaways have been considered in the Hydrology report.

Morlais C culvert catchment

- Very little is known about this system, its suitability and whether or not it's fit for purpose. Further survey information will be required to support the application.

Morlais D catchment

- Very little is known about this system, its suitability and whether or not it's fit for purpose. Further survey information will be required to support the application.

Quarry void catchment

- A waterfall to the north east of the void is indicated but there is no evidence to suggest the ground material is suitable to support this type of feature.
- There still remains uncertainty over the destination of water within the void. Further investigations in to potential receptors should be conducted.
- The rate of infiltration with the void floor/walls and the water quality within receptors from the void water remains uncertain.
- The destination of infiltrating water from the void remains uncertain.

OB1 northern catchment

- No construction details have been provided for the blockstone channel to the North East and North West of the catchment.
- Further detail required for the channel marked existing channel that catchment drains to. Further information on construction condition required.

- The catchment drains to a 600mm culvert near the A4060 which appears to be outside the site boundary. Further information is required on the condition of the culvert and the destination of surface water from the culvert.

Bargoed Taf NE catchment

- No construction details have been provided for the blockstone channel situated in the central portion of the catchment.
- The current condition/capacity of the lagoons to the south of the catchment are unknown. Is any clearance work required to ensure efficiency?
- Detail of any landscaping proposals for the lagoons has not been provided.
- The condition and suitability of culverts along Bogey Road upstream and downstream of the lagoons is unknown and further survey information is required.
- Proposals for construction of drainage channels north of the lagoons is unknown.

OB2 Nant Gyrawd catchment

- Destination of the watercourse along the eastern flank of the catchment is unknown. Further details required.
- Condition of 550mm culvert beneath Bogey Road unknown. Further survey information required for this part of the drainage system.

OB3 Nant Gyrawd catchment

- The current condition/capacity of the lagoons to the south east of the catchment are unknown. Is any clearance work required to ensure efficiency?
- Detail of any landscaping proposals for the lagoons has not been provided.

Cwm Blacs catchment

- Hydrology report “15840- Hydrology Assessment – 02” makes an assumption the catchment drains to culvert K which is incorrect. The source of water at the inlet of culvert K is unknown and further investigation/surveys required. The majority of the catchment appears to drain to the lagoon and wetland area to the east of the catchment. It is unclear if the existing culverts beneath Bogey Road are of suitable capacity.
- Five soakaways are still indicated on the drainage plan with no evidence of suitability for managing runoff. It is unclear if the soakaways have been considered in the Hydrology report.
- A recent site visit confirmed that a number of grips within the catchment have failed and need to be addressed to prevent flooding on Bogey Road.
- A recent site visit confirmed that the lagoon liner is exposed and requires attention. Details of any landscaping proposals for the lagoon are required.
- A steel pipe on the western side of the lagoon appears requires surveying to confirm its purpose.

OB3 Bargoed Taf trib 1 catchment

- The current condition/capacity of the lagoons to the south of the catchment are unknown. Is any clearance work required to ensure efficiency?
- Drainage systems feeding in to the lagoons is unclear and further survey work will be required.

OB3 Bargoed Taf trib 2 catchment

- No construction details have been provided for the blockstone channel situated in the central portion of the catchment.
- Details of drainage grips serving the crest of OB3 are required.
- Details of culverts beneath any access tracks within the catchment are required.

OB3 Bargoed Taf catchment

- Condition of all culverts within the catchment are unknown. Further survey information is required for condition capacity assessments.
- A culvert to the west of OB3 appears to have been omitted.
- Construction details for drainage grips serving the crest of OB3 required.
- Construction details for watercourse routed along the north western edge of OB3 required.
- There appears to be a drainage system the south western area of OB3 serving ground water meaning from the toe of the tip. Further information on the purpose of this drainage system is required.
- A number of lagoons are located within the catchment. The current condition/capacity of the lagoons within the catchment are unknown. Are any clearance and landscaping works required to ensure efficiency?

Appreciate there's quite a lot to consider on the above but in terms of any long term restoration and ensuring any of the drainage systems within the site are fit for purpose and do not pose a risk in the future, would be critical in our view.

Thanks,

Huw.