

COMMENT RESPONSE MATRIX, FLATO GLENELG DEVELOPMENT DRAFT PLAN REDLINE (MAY 22, 2020)

COMMENT #	COMMENT	RESPONSE
GRAND RIVER CONSERVATION AUTHORITY		
GENERAL COMMENTS		
1.0	The % imperviousness used in the hydrologic calculations for the March 2020 Servicing & SWM Implementation Report differs very slightly from the numbers used in the Mar 25, 2020 Traffic, Servicing and Stormwater Management Analysis in support of the redline revisions to the approved Draft Plan. Please confirm whether both of these reflect the increased % imperviousness due to the additional lots and conversion of single family lots to townhouse lots for the proposed Draft Plan redline revisions. Additionally, please clarify which hydrologic analysis is the most current and is to be used for review.	The percent imperviousness values used in the Servicing & SWM Implementation Report (March 2020) hydrologic calculations were based on the site statistics presented in the July 2019 Draft Plan prepared by MHBC. This plan proposed 130 single-family units and 33 townhouse units, respectively. In the Traffic, Servicing & Stormwater Management Analysis Brief (March 2020), the hydrologic calculations were updated to reflect 118 single-family units and 65 townhouses units based on the Draft Plan Redline (MHBC, March 2020). The increase in townhouse units resulted in an overall increase in the percent imperviousness of the contributing drainage area to the SWM Facility. The hydrologic analysis presented in the Traffic, Servicing & Stormwater Analysis Brief is the most current.
2.0	The pre-development catchment area of 101 is 9.6ha, however the total development area for this subdivision is 12.8 ha and the area contributing to the SWM facility appears to be 9.02ha. Please clarify the catchment areas that have been used for determining the pre-development and post development flows.	Pre-development flows are based on a drainage area of 9.6 ha. As noted in Section 8.3 of the Servicing & SWM Implementation Report, under existing drainage conditions, 8.7 ha of the site drains to Glenelg Street. The total area accounted for under pre-development conditions was increased to 9.6 ha to account for the external area (i.e. Western side of CP Rail Trail & Glenelg Street ROW) which drains to the outlet pipe on Glenelg Street. The total drainage area modelled under post-development conditions was 12.13 ha. The post-development drainage area has been split into controlled and uncontrolled flows. The controlled drainage area consists of 9.01 ha which is directed to the SWM Facility and 0.98 ha which is directed to the superpipe system. The uncontrolled drainage area consists of 1.71 ha directed to the Western Wetland and 0.43 ha directed to the Glenelg Street storm sewer system. Pre and post-development drainage areas do not match because under existing conditions a portion of the development drains west to the natural heritage feature. This area is directed south to Glenelg Street under post-development conditions. A water balance is currently being undertaken to ensure associated flows and volumes to the respective wetlands are appropriate, as is required in the development's current conditions of Draft Plan Approval.
3.0	It is difficult to determine based on the different scale and map orientation used in the pre-development and post-development catchment modelling plans (Fig 3 and Fig 4 in the Servicing and SWM Implementation Report, March 2020). Please clarify if drainage from catchment 102 will be directed to the SWM facility as part of this development.	Under pre-development conditions, Catchment 102 drains west to the western natural heritage feature. Under post-development conditions, approximately 1.4 ha of this catchment will be directed to the SWM Facility.
4.0	Based on the Post-Development Catchment Modelling Plan (Fig 4 in the Servicing and SWM Implementation Report, March 2020) and the summary tables provided in the report, it appears that runoff from catchments 204, 204A, 204B, 203, 205, 206 and 207 has not been accounted for in the attenuation of post development flows to pre-development flows. It is understood that these catchments will be draining uncontrolled to the Western Feature, however the water balance has not been provided that supports this. Please clarify.	Catchment 204 is directed to the superpipe system which will attenuate the stormwater from this catchment via the use of an orifice. Catchments 204A and 204B drain to the Glenelg Street stormsewer system while the remainder listed (203, 205, 206 and 207) will drain uncontrolled to the Western Feature. As per the Draft Plan Agreement condition, the water balance is ongoing and in the process of being completed. Appropriate mitigative measures will be implemented through the ongoing detailed design process and the final SWM design will ensure adequate water balance in the developed condition.
5.0	The water balance has not been completed and the seasonally high groundwater elevation has not been confirmed. It is understood that the SWM design may change pending results of the feature based water balance. As there is a very small margin of freeboard for the pond volume to accommodate the 100 year event, the complete water balance should be provided for review in support of the final SWM design. Additionally, GRCA is not able to comment on any proposed mitigation measures or impacts to the natural features until the water balance has been reviewed.	The maximum storage used in the 100-year SCS design storm event is 6661 m ³ . This volume corresponds with an elevation of 518.05, which is only 60% of the ponds total active storage. The emergency spillway was set based on these results. If the SWM Facility design needs to change to accommodate for the water balance, the emergency spillway invert elevation can be raised. As noted, the water balance is currently ongoing and will be provided for review in support of final SWM design to satisfy the related condition of Draft Plan Approval.
6.0	The seasonally high groundwater elevation should be indicated on the profile drawing of the SWM facility.	To be addressed in detailed design submission.
7.0	The Sediment and Erosion Control Plans will be required for review.	To be addressed in detailed design submission.
8.0	Please provide sediment forebay cleanout frequency calculations for review.	To be addressed in detailed design submission.