



Appendix D

Treatment Breakdown by Sub-Catchments



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Northern Corridor Improvements - Stormwater Management Summary

Designed Matthew Yu
 Reviewed Don Mackintosh
 Date 22/11/2016

		No Treatment Proposed	Treatment Proposed	Consenting Criteria - Proposed Conditions										
MOTORWAY SUB-CATCHMENTS												Detention / Retention Requirement	Attenuation to Pre-Dev Flow Rates	
Device / Sub-Catchment	Existing HUR Impervious (ha)	New Busway / Shared-Use Path Impervious - non-HUR (ha)	New HUR Impervious (ha)	New Impervious Area (ha)	Total HUR (ha)	Total Impervious (ha)	Total Proposed Pervious (ha)	HUR Areas Treated to 75% TSS Removal (ha)			Treatment Percentages			
								Existing Treatment	Proposed Additional Treatment	Total Treatment				
Oteha Valley to McClymonts (OV2M) - Outfalls to Lucas Creek	3.32	0.98	0.13	1.11	3.45	4.44	1.21	3.32	0.13	3.45	(Existing: 100% of Existing Impervious) (Proposed: 100% of Total HUR) (Proposed: 100% of New HUR)	SMAF1 Detention No Retention	2-year ARI 10-year ARI	
Oteha Valley East Wetland	Replaces Alpur Pond 31, therefore achieving little additional treatment							0.70	0.04	0.74				
Oteha Valley West Wetland								0.00	0.43	0.43				
Alpur A1 Pond 30	Less treatment provided than existing - catchment treatment provided by Oteha Valley West Wetland							2.62	-0.34	2.28				
McClymonts to Spencer (M2S) - Outfalls to Don Mckinnon Drive	1.60	0.62	-0.01	0.62	1.59	2.21	0.27	1.48	0.11	1.59	(Existing: 93% of Existing Impervious) (Proposed: 100% of Total HUR) (Proposed: No new HUR Proposed)	SMAF1 Detention No Retention	2-year ARI 10-year ARI 100-year ARI	
McClymonts Wetland								1.48	0.11	1.59				
Spencer to Rosedale (S2R) - Outfalls to Oteaha Stream	7.69	2.71	1.73	4.44	9.42	12.13	4.65	3.52	5.90	9.42	(Existing: 46% of Existing Impervious) (Proposed: 100% of Total HUR) (Proposed: 342% of New HUR)	SMAF2 Detention No Retention	2-year ARI 10-year ARI 100-year ARI	
Greville Wetland	Replaces Alpur Pond 33							0.80	1.32	2.12				
Alpur A1 Pond 34	Less treatment provided than existing - catchment treatment provided by another proposed device							2.72	-0.46	2.26				
SF-S2R-1	Existing device is undersized. Proposed SF-S2R-1 has been provided to provide 75% TSS removal.							0.00	4.02	4.02				
SW-S2R-1	Pre-Dev: Alpur A1 Pond 35 provides approx 45% of required WQV for 3.88ha of HUR area, resulting in approx 55% TSS removal, as per TP10 Table 3-1							0.00	1.02	1.02				
Rosedale to Constellation (R2C) - Tait Place Channel	3.70	1.89	2.84	4.73	6.54	8.43	4.62	1.89	4.65	6.54	(Existing: 51% of Existing Impervious) (Proposed: 100% of Total HUR) (Proposed: 164% of New HUR)	SMAF2 Detention No Retention	2-year ARI 10-year ARI 100-year ARI	
Moro Wetland	Replaces ex StormFilter							1.89	4.65	6.54				
Constellation to Paul Matthews (C2PM) - Watercare Overflow Channel	2.40	0.00	1.39	1.39	3.79	3.79	2.59	0.77	2.60	3.37	(Existing: 32% of Existing Impervious) (Proposed: 89% of Total HUR) (Proposed: 187% of New HUR)	SMAF2 Detention No Retention	2-year ARI 10-year ARI 100-year ARI	
Caribbean Wetland	Replaces ex StormFilter							0.77	2.32	3.09				
SW-C2PM-1								0.00	0.28	0.28				
Paul Matthews to Albany Highway (PM2AH) - Alexandra Stream	2.36	0.34	2.19	2.53	4.57	4.89	1.73	0.00	4.57	4.57	(Existing: 0% of Existing Impervious) (Proposed: 100% of Total HUR) (Proposed: 209% of New HUR)	SMAF2 Detention No Retention	2-year ARI 10-year ARI	
Rook Wetland								0.00	2.85	2.85				
SW-PM2AH-1								0.00	1.72	1.72				
PROJECT WIDE	21.08	6.55	8.27	14.82	29.36	35.89	15.07	10.97	17.97	28.94	(Existing: 52% of Existing Impervious) (Proposed: 99% of Total HUR) (Proposed: 217% of New HUR)			

Notes:

Existing Treatment shown for Oteha Valley East Wetland represents existing treatment areas for Alpur Pond 31 (pond to be removed)
 Existing Treatment shown for McClymonts Wetland represents existing treatment areas for Alpur Pond 32 (pond to be removed)
 Existing Treatment shown for Greville Wetland represents existing treatment areas for Alpur Pond 33 (pond to be removed)
 Existing Treatment shown for SF-S2R-1 represents existing treatment areas for Alpur Pond 35 (existing pond undersized for 75% TSS removal)
 Existing Treatment shown for Moro Wetland represents existing treatment areas for StormFilter (to be removed)
 Existing Treatment shown for Caribbean Wetland represents existing treatment areas for StormFilter (to be removed)



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