

Attachment A - Defined extent for stormwater infrastructure works for reimbursement.

The below items are to be included in, or excluded from, the stormwater developer works reimbursement. The final reimbursement value will be negotiated and agreed during the drafting of the individual Developer Works Agreement.

Item	Description	Reimburse	Justification/conditional requirements	Comments/evidence required
a	Engineering fees works including design, reports, modelling, coordinate meetings, contract/project mgt, project admin., QA certifications, surveys, financial and legal fees etc.	Yes	All are required for the successful implementation of the SWC scheme.	Cost is to be calculated as a % of the total cost of the infrastructure to be delivered based on Melbourne Water engineering cost calculator (calculator).
b	Preliminary investigations (geotechnical, heritage, flora/fauna etc.)	Conditional	Yes, for SWC infrastructure areas No, for development areas	The % (pro rata) of the cost for the SWC infrastructure is to be provided for SWC endorsement. Evidence of fees and charges are to be provided. Reports provided to SWC.
c	Approvals	Conditional	Yes, for SWC infrastructure identified in the scheme plan and approval through a REF. No, for approvals being sought through DA/SSD or re-approvals due to changes instigated by developer. No, for approvals not relating to scheme infrastructure.	Evidence of fees and charges are to be provided to SWC for endorsement.
1	Site establishment			
1.1	Site establishment and maintenance of site, including site sheds/amenities	Conditional	Yes, for all projects require site preparation for areas not connected to development works area (provided it is only for SWC required works). No, for all other circumstances.	BOQ that separates SWC works from development works. Evidence of fees and charges are to be provided to SWC for endorsement.
1.2	WH&S requirements (including confined space)	Yes	To be included in Item A	
1.3	Insurance - professional indemnity and public liability	Yes	To be included in Item A	
1.4	Permit to work including training in accordance with our requirements	Yes	To be included in Item A	
1.5	Existing service locating	Yes	To be included in Item A	
1.6	Site security	No	Not required for SWC assets. To be confirmed by SWC during construction.	
1.7	Site preparation including removal and disposal of trees, rubbish, structures, fences, rock/rubble, and protection of designated flora/temporary site fencing	Conditional	Yes, provided it's only for SWC stormwater infrastructure works that are for sites separate to development works area. No, for any other circumstance.	BOQ that separates SWC works from development works. Sufficient detail in BOQ and detailed design drawings
1.8	Dewatering of existing dams and other water storages	Conditional	Yes, for regional basins when the dam would not be impacted by development. No, for all other circumstances.	Require plans showing location of dam/water storage and indication of development footprint as per DA/SSD.
2	Site and traffic management plan			
2.1	Traffic management	No	SWC infrastructure should not requiring traffic management.	
3	Survey			
3.1	Survey set out	Yes	To be included in Item A	
3.2	Interim survey during construction	Yes	To be included in Item A	
4	Environmental/ Construction management plan			
4.1	Preparation and monitoring of environmental management plan	Yes	To be included in Item A	
4.2	Implementation and maintenance of environmental controls (such as sediment and erosion control)	Conditional	Yes, for works that are to protect the downstream environment including erosion and sediment controls for the channel/basin works only (all works surrounding and upstream need their own works). Maintenance period to be realistic for construction period. No, for maintenance above the proposed maintenance timeframe and for activities, such as dust control.	To be provided to SWC for endorsement prior to pricing. Maintenance fees will be impacted by feedback from SWC officer (photos) if assets are not being appropriately maintained.

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4.3	Temporary stormwater diversion system during construction works	Yes	Necessary and cost-effective way to complete works in dry conditions.	Plan to be provided for endorsement prior to pricing. If pumping is required due to site constraints, necessity for pumping is to be demonstrated
4.4	Management of upstream flows during construction	Yes	Allow for all works necessary during construction period to enable works to be undertaken in a safe, environmentally friendly manner	Plan to be provided for endorsement prior to pricing.
5	Inspection and Test Plan (ITP) and quality assurance administration			
5.1	ITP development	Yes	To be included in Item A	
5.2	Inspections/testing to be undertaken during construction	Yes	To be included in Item A	
5.3	Quality assurance administration and maintenance of records	Yes	To be included in Item A	
6	Earthworks			
6.1	Stripping and stockpiling of topsoil	Yes	For future re-instatement of disturbed area	
6.2	Compaction and trimming to shape	Conditional	Yes, for scheme plan infrastructure (embankments etc.) No, for subdivision or road works	Sufficient detail to be provided in BOQ and detailed design drawings. Separated from development works.
6.3	Spoil management (i.e. offsite transfer or disposal of spoil)	No	It is expected the developer will use or dispose of all spoil yielded by stormwater infrastructure earthworks on their site. Any other circumstance by negotiation.	
6.4	Liner (clay or other), if required	Yes	Essential to minimise ingress into existing soil that might be sodic or dispersive. To SWC specifications and requirements.	
7	Pipelines			
7.1	Complete including excavation, supply of nominated pipes, laying, bedding, jointing and backfill, as detailed excluding surface finish (pavement/topsoil/grass)	Conditional	Yes, only for pipelines required to connect stormwater into regional basin infrastructure (mainly diversion structures and daisy chain connections between basins) No, for inter allotment or road drainage.	Sufficient detail to be provided in BOQ and detailed design drawings. Separated from development works.
7.2	Balance pipes and agricultural drains	Yes	All pipes associated with hydraulic performance of wetlands and bioretention systems and to prevent water accumulation in maintenance access paths and supporting retaining walls.	
7.3	Topsoiling and grassing of disturbed area over scheme pipes	Yes	Only for pipes required for regional basin infrastructure (see 7.1). Required only for reinstatement that are not be vegetated by the SWC.	
7.4	Culverts/pipes under public or private roads (current or existing) accommodating 100yr flows	No	Road authority/developer to fund	This includes all retaining walls, sandstone armouring, rip rap that is required to deliver culverts/pipes.
7.5	Pipe stub (exposed outside headwall/outlet)	Conditional	Yes, if it's to form part of scheme channel or pipe connection. No, if connecting a private drainage into channel/basin.	Sufficient detail to be provided in BOQ and detailed design drawings.
7.6	Lot drain connection within road easement to pipe or pit or Internal subdivision pipes/pits	No	Not required in scheme therefore not funded	
8	Stormwater structures			
8.1	Complete including excavation, internal and external formwork, reinforcement, supply and placement of concrete, step irons, backfilling and surplus soil disposed offsite	Yes	Required in scheme therefore funded (subject to other item 7 conditions).	
8.2	Pit types and spacing	Yes	Junction pit at a scheme node, manhole at all other where it meets 100xD spacing.	Sufficient detail to be provided in BOQ and detailed design drawings. Separated from development works.
8.3	Twin function pit	Yes	When necessary for operation of regional basin infrastructure.	
8.4	Special structures	Conditional	Yes, provided it's performing a necessary function under the scheme. No, for development purposes.	
8.5	Basin outlet structure	Yes	To ensure effective operation of regional basin. Design of outlet as per SWC requirements only.	
8.6	Culvert guardrails	Conditional	Yes, if we reimburse for the culvert that will include the guardrail. No, for all other circumstances.	

Item	Description	Reimburse	Justification/conditional requirements	Comments/evidence required
8.7	Retaining walls	Conditional	Yes, For SWC basins when provides savings to scheme. Yes, For SWC channels only to support maintenance access track or drop structures. No, for all other circumstances, especially those that support a development area or road.	
8.8	Supply and install safety barrier/fencing	Conditional	Yes, for SWC funded assets with a vertical drop over 900mm or other identified high-risk asset No, for Non SWC funded assets with a fall of over 900mm	
8.9	Construct and remove temp end walls / make good connection / sump at property boundary	No	Connections from development area or private land are not funded under scheme.	N/A
9 Naturalised trunk drainage channels				
9.1	Excavation (existing waterways)	No	SWC does not fund works in existing waterways, this is part of development of that site.	N/A
9.2	Excavation (new channels)	Conditional	Yes, for the excavation required to meet the scheme plan design requirements. No, for the cost of any additional length/depth of channel that's designed to better suit the development needs to be determined and will be at the Developer's cost.	BOQ to compare between the scheme plan channel area and final design proposed excavation. Sufficient detail to be provided in BOQ and detailed design drawings
9.3	Rockwork (rip rap, drop structures, rock lined channel sections etc.)	Conditional	Yes, for rock works in and around scheme identified inlets and drop structures and other areas endorsed through final design. No, for works that support a private crossing or rock scour protection at development outlets. No, for additional rock required due to changes in channel alignment or width to increase development footprint.	Separate SWC and development works. Sufficient detail to be provided in BOQ and detailed design drawings.
9.4	Placement of topsoil	Yes	For all areas within the drainage easement, essential for plant establishment.	Sufficient detail to be provided in BOQ and detailed design drawings. Documentation as evidence media/soil is as per SWC specifications.
10 Sediment ponds				
10.1	Excavation	Yes	Essential for providing the necessary storage volume for the sediment pond.	
10.2	Rock placed on top of clay liner	Yes	Provides hard base for future maintenance activities. As per SWC specifications.	Sufficient detail to be provided in BOQ and detailed design drawings
10.3	Dedicated maintenance tracks and sediment storage area	Yes	Essential for the future maintenance activities. As per SWC specifications.	
11 Wetlands				
11.1	Excavation	Yes	Essential for providing the necessary volume for water quality treatment.	Sufficient detail to be provided in BOQ and detailed design drawings
11.2	Rockwork	Yes	All rockwork associated with performance of wetland. Doesn't include rock scour apron at development outlets.	
11.3	Supply and installation of wetland media	Yes	Required to meet water quality and plant health. Media needs to meet SWC specifications.	Sufficient detail to be provided in BOQ and documentation as evidence media/soil is as per SWC specifications
11.4	Placement of topsoil	Yes	For all areas within the basin footprint, essential for plant establishment.	
12 Bioretention system				
12.1	Excavation	Yes	Essential for providing the necessary treatment profile for the bioretention.	Sufficient detail to be provided in BOQ and detailed design drawings
12.2	Rockwork (if required)	Yes	All rockwork associated with performance of the bioretention.	
12.3	Placement of topsoil on batters	Yes	Essential for plant establishment and health.	Sufficient detail to be provided in BOQ and documentation as evidence media/soil is as per SWC specifications
12.4	Supply and installation of Filter media, transition, and drainage layers	Yes	Critical part of the functioning bioretention. Media needs to meet SWC specifications.	
13 Storage ponds				
13.1	Excavation	Yes	Essential for providing the necessary storage volume for the meeting water quantity reduction targets.	Sufficient detail to be provided in BOQ and detailed design drawings
13.2	Spillway/overflow system	Yes	Critical part of the functioning pond	
13.3	Placement of topsoil	Yes	For all areas within the reserve, essential for plant establishment	
13.4	Stormwater harvesting and water reticulation infrastructure	Yes	Critical part of the functioning pond and to achieve stormwater quantity targets.	

Item	Description	Reimburse	Justification/conditional requirements	Comments/evidence required
13.5	Supervision and testing of all filling in accordance with Dam safety requirements	Yes	Critical part of the functioning pond.	Quotes from suitable qualified engineer Report submitted
14 Planting				
14.1	Tube stock and hiko-cells supply and installation (Aquatic, ephemeral/edge, native grasses, terrestrial etc.)	Yes	Tube stock and hiko-cells are acceptable as they have a greater success rate over more mature plants. Use of more mature plants will be at Developers cost.	Sufficient detail to be provided in BOQ and detailed landscape plan
14.2	Turf grass	No	Areas that are not vegetated are to not be included in the easement, generally these areas are to be managed by landowner or Council.	
14.3	Irrigation systems and water supply for SWC infrastructure	Yes	The irrigation system is to be permanent with future connection to recycled water supply. During establishment period (generally 24 months) the cost of water is to be at the developer's expense, however this can include harvesting from interim on-lot water quality/quantity system. After establishment period is complete recycled water is at SWC expense for SWC assets only.	Sufficient detail to be provided in BOQ and detailed landscape plan
14.4	Erosion/weed control matting (jute webbing etc.) and mulch	Yes	Essential in suppressing weeds and supports plant establishment. Generally, areas <1% AEP are to be matted and areas >1% AEP are to be mulched.	Sufficient detail to be provided in BOQ and detailed landscape plan
14.5	Net gain offset planting (inc. monitoring)	Conditional	Yes, if the trees are planted as an offset due to construction of SWC asset No, for development offset or due to offset reductions in vegetation from channel modifications.	Sufficient detail to be provided in BOQ and detailed landscape plan. Arborist report.
14.6	Top/Planting soil preparation	Yes	Soil preparation prior to plants being installed will ensure a higher quality of plants established. This is only applicable for SWC assets. Areas outside our requirements, such as garden beds, are Developer funded.	Sufficient detail to be provided in BOQ and detailed design drawings.
15 Asset recording/project completion				
15.1	Asset recording (as-con survey and creation of plans/drawings)	Yes	To be included in Item A	
15.2	CCTV inspection of all scheme pipework (generally connecting to and within regional basin system)	Yes	Only for SWC assets (such as bioretention underdrains and basin diversion pipes).	BOQ, quote or rates per lin. M etc.
16 Defect liability and maintenance of SWC assets (24 months)				
16.1	Preparation and management of maintenance contract/s	Yes	To be included in Item A	
16.4	Planting maintenance (including weed management, watering, pest control etc.) of the works during the establishment and defects liability period	Yes	Critical for asset integrity and performance. Note, any additional maintenance due to rectify defects or non-compliance with maintenance requirements will be at the developer's expense.	Quotes from suitably qualified bushland regeneration or landscaper. Feedback from surveillance officer in situations where maintenance frequency questioned (photos).
16.5	Tree sleeves & hardwood stakes	Conditional	Only if trees/vegetation are at risk of vermin/rabbit damage, this should only occur at the requested from SWC based on previous experience.	Sufficient detail to be provided in BOQ and detailed landscape plan.
16.6	Replacement of plants during the defects period	Conditional	Yes, if due to event out of control of the developer (flood etc.) No, for poor management of vegetation or poor site preparation.	Needs to be raised as variation with evidence and cost estimate from suitable contractor.
16.7	Temporary fencing (required until planting is established)	Conditional	Needs to be approved by SWC prior to installation.	Sufficient detail to be provided in BOQ and detailed landscape plan
17 Maintenance access tracks				
17.1	Supply and installation of base layer and surface to SWC requirements	Yes	For all maintenance tracks required for SWC infrastructure. As per SWC specifications.	
17.2	Concrete edges to contain track material (when not concrete track)	Yes	For all maintenance tracks that are not concrete required for SWC infrastructure.	
17.3	Cross overs into public/private road to allow easy access into maintenance track	Yes	As per council requirements	Sufficient detail to be provided in BOQ and detailed landscape plan
17.4	Bollards or barrier to prevent vehicle access into asset area from road or shared user path	Yes	To determine need during detailed design. As per SWC requirements.	
17.5	Signage and gates/bollards	Yes	Signage to indicate authorised access only for vehicles and flood affected area as per SWC requirements.	

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			Gates/removable bollard to prevent unauthorised access as per Council/SWC requirements.	
18	Temporary works			
18.1	Temporary open drain outfall - excavation costs only	Conditional	Yes, if temporary works proven to be part of ultimate asset without excessive over excavation. No, if not proven to be part ultimate works and only to facilitate upstream development.	Preliminary plans of both the future asset and surrounding subdivision. Sufficient detail to be provided in BOQ and detailed design drawings.
18.2	Temporary open drain outfall	No	Temporary works only to facilitate upstream development.	
18.3	Temporary Retarding Basin	No	Development timing requirement.	
18.4	Temporary access track	Conditional	Yes, if constructed solely for our asset creation and SWC agree to this requirement. No, for all other circumstances.	Sufficient detail to be provided in BOQ and detailed design drawings.
18.5	Reset sediment pond back to design levels at end of defect period	Conditional	SWC expect a clean 'fresh' asset at handover. Yes, if used as regional (multiple developments) asset in which SWC to cover cost. No, if used as used as the sediment basin for a singular development.	Sufficient detail to be provided in BOQ and evidence of sediment levels accumulated.
18.6	Construction and cleanout of any sumps at end of existing pipes	No	Not part of the ultimate works, more enforcement upstream may be required.	
19	Miscellaneous			
19.1	Site reinstatement	Conditional	Yes, if required once SWC approve. All works are to be in a similar condition to pre-commencement (do not reimburse for nature strip reinstatement or development reinstatement). No, for all other circumstances.	Evidence of need to be provided before pricing. Sufficient detail to be provided in BOQ.
19.2	Alteration to existing services, e.g. Telstra fibre optic, sewer rising main & water main	Conditional	No, if the need to alter services is shared equally or predominantly by Developer or other service authorities. SWC to Consider pro rata. Yes, if required by the scheme.	Evidence that the relocation was the most economical option.
19.3	On-costs on top of rates for work	Conditional	Yes, when forced to engage parties external to the construction contract e.g. rail contractors, gas service authorities. No, when the items are included in the original tender schedule.	Copies of relevant correspondence.
19.4	Service/utility location/relocation	Conditional	Yes, if consultant has performed due diligence. No, if it largely relates to subdivision or if the asset is under Developer's control.	Copies of relevant correspondence
19.5	Supervision and management (included on tender) - e.g. site foreman	Yes	To be included in Item A	
19.6	Reinstatement of existing road, rail, services, driveway, footpaths etc.	Yes	Reinstate to similar condition prior to works.	Evidence of need to be provided before pricing. Sufficient detail to be provided in BOQ.
19.7	Pavement markings, signs & road furniture	No	Prohibited by SWC DSP.	
19.8	Street lighting, concrete kerbing and channel	No	Prohibited by SWC DSP.	
19.9	Footpaths	No	Prohibited by SWC DSP. Only if requested by SWC during design.	
19.10	Pedestrian crossings, viewing platforms, etc.	No	Prohibited by SWC DSP.	
19.11	Overheads/contingencies	No	Should be factored into job rates, as on its own doesn't contribute to SWC asset.	
19.12	Pumping (not related to stormwater harvesting)	Conditional	Yes, Site establishment (in lieu of a bypass system). During construction - wet weather event. Temporary outlet beyond construction area. No, all other circumstances.	Consultant to provide analysis demonstrating that this is the most cost-effective method of managing the flows.
20	Variations			
20.1	Variations with fair and reasonable rates (and associated engineering fees)	Conditional	Variations always require some degree of design input. Justification must be submitted prior to carrying out of work.	Evidence of need, claim certificate from contractor, and rates to be agreed before works occur.
20.2	Negative variations that are fair brought about by our accepted reduction in scope of work (no reduction in engineering fees)	Yes	Engineering input similar or already completed, but with cost benefit to SWC.	Feedback from surveillance officer and/or consultant.
20.3	Negative variations without our accepted reduction in scope of work (apply reduction in engineering fees)	Yes	Engineering input reduced, or non-existent completed, no worthwhile cost benefit to SWC.	Feedback from surveillance officer and/or consultant.
20.4	Wet weather layoff and stand down time	No	SWC don't control any aspect of the timing of works	