

**WESTBREEN CREEK CONSERVATION AND DEVELOPMENT PLAN**

**IMPLEMENTATION SCHEDULE V4** Prepared by TBLD P/L for Moreland City Council. Note: preliminary cost estimates are for planning purposes only and subject to survey and detailed design. Costs do not include recurrent maintenance.

High 1-5 years, Medium 6-10 years, Low 10+ years

Item No.	Dwg ref.	Action Description	Amount	Item	Rate	MCC Cost	Cost Other	Priority	Agency responsible for approval	Agency responsible for funding	Related Works
<b>1. NORTHERN GOLF COURSE &amp; HM DOWD RESERVE</b>											
1.1	A1	Support Melbourne Water investigation of enhanced flood retardation, water quality treatment and stormwater harvesting options with Northern Golf Club.		Item		N/C		High	MW/NGC	MW	
1.2	A2	Undertake additional tree planting in HM Dowd Reserve.		Item		\$1,000		Low	MCC	MCC	
		<b>Subtotal Northern Golf Course &amp; HM DOWD Reserve</b>				<b>\$1,000</b>					
<b>2. KW JOYCE RESERVE</b>											
2.1		<b>Path works</b>									
2.1.1	A11	Maintain vegetation clearances, dog off leash status along the shared path to reduce the conflicts between users.		Item		N/C		High	MCC	MCC	2.1.2
2.1.2	A5	Realign unsealed informal path away from eroding bank and revegetate to improve stability.	300	sqm	\$50	\$15,000		High	MW	MCC	2.1.3
2.1.3	A13	New 1.5m wide unsealed east bank walking path including minor cut to fill earthworks.	250	lin. m	\$180	\$45,000		Medium	MCC	MCC	2.1.2
	A13	Local drainage improvements along new track.		Item		\$12,500		Medium	MCC	MCC	2.1.3
	A13	New signage and seating.		Item		\$5,000		Medium	MCC	MCC	2.1.3
2.2		<b>Facilities</b>									
2.2.1	A4	Upgrade unsealed path to a 3.0m wide sealed shared trail path including reinstatement of topsoil to sides.	280	lin.m	\$350	\$98,000		Medium	MCC	MCC	
	A4	Relocate existing seat so the upgraded sealed shared trail path runs in front along in KW Joyce Reserve.		Item		\$500		Medium	MCC	MCC	2.2.1
2.2.2	A20	Replace existing pine log barriers along Northumberland Road.	150	lin.m	\$200	\$30,000		Low	MCC	MCC	
2.2.3	A23	Remove pine log barriers without replacement along Cornwall Road.	370	lin.m	\$10	\$3,700		Low	MCC	MCC	
2.2.4	A6	Investigate potential future play space with nature-based play elements and seating in the north west corner of KW Joyce Reserve.		Item		\$80,000		Low	MCC	MCC	
2.2.5	A12	Investigate potential future play space with nature-based play elements north east of KW Joyce Reserve (Subject to completion of the path link).		Item		\$20,000		Medium	MCC	MCC	2.1.1
2.3		<b>WSUD</b>									
2.3.1	A7	New planted interception swale south of KW Joyce Reserve to reduce path washout from house drain discharge. Protect existing large remnant trees.		Item		\$20,000		High	MCC	MCC	
2.3.2	A22	Review frequency of GPT maintenance to reduce rubbish build up.		Item		N/C		Medium	MCC	MCC	
2.4		<b>Vegetation Management</b>									
2.4.1	A3	Liaise with Pascoe Vale Girls College to improve park interface and investigate developing a waste management program to minimise rubbish build-up.		Item		N/C		Low	SCHOOL	SCHOOL	
2.4.2	A26	Assess risk issues and erosion with soil amelioration and revegetation of the former quarry.		Item		\$2,000		Medium	MCC	MCC	
		<b>Subtotal KW Joyce Reserve</b>				<b>\$331,700</b>					

**WESTBREEN CREEK CONSERVATION AND DEVELOPMENT PLAN**

**IMPLEMENTATION SCHEDULE V4** Prepared by TBLD P/L for Moreland City Council. Note: preliminary cost estimates are for planning purposes only and subject to survey and detailed design. Costs do not include recurrent maintenance.

High 1-5 years, Medium 6-10 years, Low 10+ years

Item No.	Dwg ref.	Action Description	Amount	Item	Rate	MCC Cost	Cost Other	Priority	Agency responsible for approval	Agency responsible for funding	Related Works
<b>3. GAVIN PARK</b>											
<b>3.1</b>		<b>Path works</b>									
3.1.1	A16	Establish new 1.5m wide unsealed east bank walking path link from Arndt Road to Zenith Street including minor cut to fill earthworks.	120	lin.m	\$150	\$18,000		Medium	MCC	MCC	3.3.1
3.1.2	A9	Upgrade informal pedestrian access to unsealed from Arnold Court and replace pine log barriers.	100	lin.m	\$200	\$20,000		Low	MCC	MCC	3.3.3
3.1.3	A10	Upgrade informal pedestrian access to unsealed from Longview Street North and replace pine log barriers.	100	lin.m	\$200	\$20,000		Low	MCC	MCC	3.3.3
3.1.4	D11	Construct new 2m wide sealed footpath link to connect the carpark to the shared path.	40	lin.m	\$200	\$8,000		Medium	MCC	MCC	3.3.4
3.1.5	A25	Formalise path between 25 & 27 Zenith Street to a 1.5 wide unsealed walking path.	30	lin.m	\$150	\$4,500		Low	MCC	MCC	3.3.3
<b>3.2</b>		<b>Facilities</b>									
3.2.1	A21	Replace existing vehicle control barriers, renew park fencing and upgrade signage at Arndt Road.	180	lin.m	\$200	\$36,000		Medium	MCC	MCC	3.4.1
3.2.2	A21	New signage on both sides of Arndt Road. Investigate pedestrian safety improvements to the crossing and consult with residents on any proposed design.	2	No.	\$1,000	\$2,000		Medium	MCC	MCC	3.2.1
3.2.3	A15	Investigate closure of Penzance Road to through traffic. Retain existing private driveway access and upgrade paths and crossing to improve open space links to Cole Reserve.		Item		\$50,000		Low	DELWP	MCC	3.1.1
3.2.4	A24	Remove pine log barriers without replacement along Zenith Street.	100	lin.m	\$10	\$1,000		Medium	MCC	MCC	3.1.1
3.2.5	B3 & D10	Upgrade existing shelter and BBQ facilities		Item		\$25,000		Medium	MCC	MCC	3.3.4
3.2.6	B4	Provide additional signage to new toilet block		Item		\$1,000		Medium	MCC	MCC	3.3.4
3.2.7	B16 & D16	Replace existing pine log vehicle barriers along Northumberland Road at Gavin Park	160	lin.m	\$200	\$32,000		Medium	MCC	MCC	4.3.2
3.2.8	B10/D3	Provide new line marking and signage to improve safety at the Northumberland Pedestrian Crossing. Investigate pedestrian safety improvements to the crossing and consult with residents on any proposed design.		Item		\$5,000		High	MCC	MCC	3.2.7 & 4.3.2
3.2.9	A27	Upgrade existing signage to include historical details of Westbreen Creek.		Item		\$1,000		Low	MCC	MCC	3.2.6
<b>3.3</b>		<b>WSUD</b>									
3.3.1	A17	Wetland 1 - Install new offline water quality treatment wetland near Zenith Street for drainage catchments east of Cornwall Road.		Item		\$125,000	\$125,000	Medium	MCC	MW & MCC	3.1.1
3.3.2	B2 & B9 & D9	Remove existing playground (replaced by new facility in Austin Crescent Reserve) and realign existing concrete path.		Item		\$50,000		High	MCC	MCC	3.3.3
3.3.3	A8	Wetland 2 - Install new small bioretention system providing water quality treatment for Arnold Court drain catchment.		Item		\$50,000	\$50,000	Low	MCC	MW & MCC	3.1.2 & 3.1.3
3.3.4	B2 & D9 & D14	Wetland 3 - Install new large sediment pond and bioretention system providing water quality treatment wetland upstream of Northumberland Road.		Item		\$250,000	\$250,000	High	MCC	MW & MCC	3.3.2 & 3.3.5 & 3.3.10 & 4.4.1
3.3.5	B8 & D13	Provide new boardwalk crossing (no handrail) to Pleasant Street as part of new wetland works		Item		\$20,000		High	MW	MCC	3.3.4

# WESTBREEN CREEK CONSERVATION AND DEVELOPMENT PLAN

IMPLEMENTATION SCHEDULE V4 Prepared by TBLD P/L for Moreland City Council. Note: preliminary cost estimates are for planning purposes only and subject to survey and detailed design. Costs do not include recurrent maintenance.

## High 1-5 years, Medium 6-10 years, Low 10+ years

Item No.	Dwg ref.	Action Description	Amount	Item	Rate	MCC Cost	Cost Other	Priority	Agency responsible for approval	Agency responsible for funding	Related Works
3.3.6	A18	Establish shallow drainage swale along the existing path with low indigenous planting to capture local runoff from adjoining properties and restore creek habitat connection between proposed new wetlands and the existing open section of creek.	280	lin.m	\$100	\$28,000		Medium	MW	MCC	3.3.7
3.3.7	A19	Establish two drainage swale crossing points under the existing path	2	No.	\$5,000	\$10,000		Medium	MW	MCC	3.3.6
3.3.8	B1	Direct existing stormwater runoff from Essex Street to new planted drainage swale and lift both footpath crossings		Item		\$10,000		Medium	MW	MCC	3.3.7
3.3.9	D12	Reuse some soil from the Wetland 3 excavation works to regrade and grass the steep bank adjoining Northumberland Road.		Item		\$3,000		Medium	MCC	MCC	3.3.4
3.3.10	B11	Establish new Gross Pollutant Trap (GPT) in James Reserve		Item	\$50,000	\$25,000	\$25,000	Low	MW	MCC	3.3.4
3.4		<b>Vegetation Management</b>									
3.4.1	A14	Remove existing Poplars and replace with indigenous Yellow Box at Arndt Road.		Item		\$5,000		Medium	MCC	MCC	3.2.1
3.5		<b>Other</b>									
3.5.1	A28	Investigate opportunities for Public Acquisition overlay of rear private properties on Zenith and Longview Street where they obstruct the open space corridor or impact on potential for flooding. Further investigation to be undertaken.		Item		N/C		High	MCC	MCC	3.2.1
		<b>Subtotal Gavin Park</b>				<b>\$799,500</b>	<b>\$450,000</b>				

## 4. AUSTIN CRESCENT RESERVE

4.1		<b>Path works</b>									
4.1.1	B13	Realign path to enable establishment of expanded overland flow and planting area at Railway Parade end.		Item		\$10,000		Low	MCC	MCC	4.4.1
4.1.2	B15	Upgrade informal pedestrian access along Austin Crescent to 1.5m wide sealed footpath including minor earthworks	90	lin.m	\$200	\$18,000		High	MCC	MCC	
4.1.3	D5	Supply and construct 2.0m wide concrete path link from existing carpark to BBQ and playground area.	75	m2	\$85	\$6,375		High	MCC	MCC	4.2
4.2		<b>Carpark</b>									
4.2.1	D5	Supply and construct two new asphalt accessible parking spaces including line marking, signage and bollard at the existing carpark.		Item		\$7,000		High	MCC	MCC	4.2.2 & 4.2.3 & 4.2.4
4.2.2	B12	Liaise with Melbourne Water to refurbish existing car park and establish screen planting to new development on south side.		Item		\$80,000		Medium	Melb Water	MCC	4.4.1
4.2.3	D4	Supply and Install 125 x 125mm black recycled plastic bollards with galv. Cable vehicle barrier fencing to the existing carpark.	65	lin.m	\$150	\$9,750		High	MCC	MCC	4.2.1
4.2.4	D4	Supply and Install 125 x 125mm black recycled plastic removable bollard for maintenance access.	2	No.	\$420	\$840		High	MCC	MCC	4.2.1
4.2.5	D17	Supply and install gate and locks for car park in the evenings. Works to be assessed as part of Austin Crescent Reserve car park renewal works.	1	Item		\$5,000		Low	MCC	MCC	4.2.1

**WESTBREEN CREEK CONSERVATION AND DEVELOPMENT PLAN**

**IMPLEMENTATION SCHEDULE V4** Prepared by TBLD P/L for Moreland City Council. Note: preliminary cost estimates are for planning purposes only and subject to survey and detailed design. Costs do not include recurrent maintenance.

**High 1-5 years, Medium 6-10 years, Low 10+ years**

Item No.	Dwg ref.	Action Description	Amount	Item	Rate	MCC Cost	Cost Other	Priority	Agency responsible for approval	Agency responsible for funding	Related Works
4.3		<b>Playground</b>									
4.3.1	B5 & D1	Upgrade and expand the Austin Crescent Reserve Playground to include new play equipment and seating areas. Retain the existing climbing frame and relocate and refurbish the existing Clown Swing from Gavin Park.		Item		\$106,300		High	MCC	MCC	4.3.5 & 4.3.7
	D1	Bulk cut and fill earthworks and final trim to extent of playground area.		Item		\$4,000		High	MCC	MCC	4.3.5 & 4.3.7
	D1	Stormwater drainage including ag. Pipes, pits and connections to street at the perimeter.		Item		\$3,000		High	MCC	MCC	4.3.5 & 4.3.7
4.3.2	D2	Install new 1.2m high fence including timber post and black aluminium vertical panel infill along Northumberland Road.	65	lin.m	\$200	\$13,000		High	MCC	MCC	4.3.5 & 4.3.7
4.3.3	D2	Install new low planting along Northumberland Road	175	m2	\$25	\$4,375		High	MCC	MCC	
4.3.4	D1	Grass reinstatement to all area disturbed during works		Item		\$1,500		High	MCC	MCC	4.3.5 & 4.3.7
4.3.5	B6 & D17	Upgrade picnic facilities and provide a new shelter adjoining the playground		Item		\$30,000		Medium	MCC	MCC	4.3.1
4.3.6	D6	Install new drinking fountain with dog bowl with bottle refill at pathway entry.	1	No.	\$5,000	\$5,000		High	MCC	MCC	4.3.1
4.4		<b>WSUD</b>									
4.4.1	B14 & D19	Wetland 4 - Improve water quality habitat and biodiversity values and piping treated stormwater from proposed wetland 3 to the former creek course and replant with indigenous ephemeral and wetland species. Slightly widen the channel to avoid increase in flood levels and retain maintenance access to rear property fencelines		Item		\$50,000	\$50,000	Medium	MW	MW & MCC	4.1.1 & 4.2.2
4.5		<b>Vegetation Management</b>									
4.5.1	D7	Plant new trees to screen adjoining properties and playground area	12	No.	\$250	\$3,000		High	MCC	MCC	4.3.1
		<b>Subtotal Austin Crescent Reserve</b>				<b>\$357,140</b>	<b>\$50,000</b>				
<b>5. PAYNE RESERVE</b>											
5.1.1	C6	Establish low garden bed/swale along the former alignment of Westbreen Creek through Payne Reserve. Use stormwater runoff from both Park Street and McCracken Avenue to improve biodiversity values		Item		\$30,000		Low	MCC	MCC	
5.1.2	C6	Replace existing pine log barriers on Park Street.	60		\$200	\$12,000		Low	MCC	MCC	5.1.3
5.1.3	C6	Remove and replace existing pine log barriers at McCracken Avenue.	55		\$200	\$11,000		Low	MCC	MCC	5.1.2
		<b>Subtotal Payne Reserve</b>				<b>\$53,000</b>					

**WESTBREEN CREEK CONSERVATION AND DEVELOPMENT PLAN**

**IMPLEMENTATION SCHEDULE V4** Prepared by TBLD P/L for Moreland City Council. Note: preliminary cost estimates are for planning purposes only and subject to survey and detailed design. Costs do not include recurrent maintenance.

High 1-5 years, Medium 6-10 years, Low 10+ years

Item No.	Dwg ref.	Action Description	Amount	Item	Rate	MCC Cost	Cost Other	Priority	Agency responsible for approval	Agency responsible for funding	Related Works
<b>6. RAILWAY PARADE TO GAFFNEY STREET</b>											
<b>6.1 Path works</b>											
6.1.1	C1	New Railway Parade crossing point with new outstand lighting and signage. Investigate pedestrian safety and improvements to the crossing and consult with residents on any proposed design.		Item		\$20,000		High	MCC	MCC	6.1.2
6.1.2	C3	Liaise with VicTrack to relocate parking slightly to enable shared trail access along Railway Parade through to the railway station	200	lin.m	\$300	\$60,000		High	VICTRACK	MCC	6.1.1 & 6.1.3
6.1.3	C9	Upgrade crossing point to station at Gaffney Street (Signage Only)		Item		\$2,000		High	MCC	MCC	6.1.2
6.1.4	C4	Investigate options to improve safety for pedestrian and cyclists along Gaffney Street linking through to Moonee Ponds Creek Trail.		Item		N/C		High	MCC	MCC	6.1.2
6.1.5	C5	Improve path access in the Gaffney Street car park with removal of shrubs and replacement with low ground cover and install directional signage to Westbreen Creek		Item		\$5,000		High	MCC	MCC	6.1.2 & 6.1.4
		<b>Subtotal Railway Parade to Gaffney Street</b>				<b>\$87,000</b>					
<b>7. CULTURAL HERITAGE</b>											
7.1	H1	Undertake a Cultural Heritage Management Plan to inform works along Westbreen Creek		Item		\$40,000		High	OAAV	MCC	
		<b>Subtotal Cultural Heritage</b>				<b>\$40,000</b>					
		<b>SUBTOTAL</b>				\$1,669,340	\$500,000				
		Construction Contingencies (10%)				\$166,934	\$50,000				
		Detailed Design (10%)				\$166,934	\$50,000				
		Project Management (5%)				\$83,467	\$25,000				
<b>TOTAL WESTBREEN CREEK CONSERVATION AND DEVELOPMENT PLAN - IMPLEMENTATION WORKS</b>						<b>\$2,086,675</b>	<b>\$625,000</b>				

NOTE: All costs as indicated in the implementation schedule are for capitol works only. Excludes maintenance works.

<b>8. PROVISIONAL ITEMS (SUBJECT TO ESTABLISHMENT OF RAILWAY UNDERPASS)</b>											
8.1.1	C2	Liaise with VicTrack and State Government to investigate opportunity to establish a pedestrian/cyclist underpass at the railway line between Railway Parade and McCracken Avenue		Item		N/C		Low	MCC	MCC	8.1.2 & 8.1.3
8.1.2	C8	Upgrade existing path to shared trail through Payne Reserve (Subject to investigation and funding of the railway underpass)		Item		N/C		Low	VICTRACK	STAGE GOVT.	8.1.3
8.1.3	C7	Subject to establishment of an underpass at the railway line, liaise with Melbourne Water and Edith Bendall Lodge to review lease and provide direct public access between Moonee Ponds Creek and Westbreen		Item		N/C		Low	MCC	MCC	8.1.2