SITE MANAGEMENT		STANDARD DRAWING REFERENCE	DRAWING STIL WANAGEWENT		
1.1.1	OBTAIN ALL NECESSARY PERMITS AND PLAN APPROVALS, AND ASSESS ENVIRONMENTAL RISKS BEFORE COMMENCING WORKS.		WATER QUALITY REQUIREMENTS		
1.1.2	ENSURE AN APPROPRIATE EROSION AND SEDIMENT CONTROL PLAN (ESCP) IS PREPARED		1.11.1 IDENTIFY THE TARGET WATER QUALITY OBJECTIVES (WQOS) FOR THE SITE. WQOS ARE NORMALLY ASSIGNED BY THE STATE OR LOCAL GOVERNMENT.		
	PRIOR TO INITIATING AND SITE DISTURBANCE.		1.11.2 TYPICAL WATER QUALITY OBJECTIVES ARE:		
1.1.3	ENSURE THE DEGREE OF DETAIL PRESENTED WITHIN THE ESCP IS APPROPRIATE FOR THE COMPLEXITY OF THE PROPOSED WORKS, AND IN SUCH DETAIL TO ALLOW ALL CONTROL		- 50MG/L OF TOTAL SUSPENDED SEDIMENT; - A TURBIDITY LEVEL NO GREATER THAN 10% ABOVE THAT OF THE RECEIVING WATER;		
	MEASURES TO BE CORRECTLY LOCATED AND CONSTRUCTED.		- WATER PH IN THE RANGE OF 6.5 TO 8.5		
DDE COI	NSTRUCTION CONFERENCE		1.11.3 IDENTIFY AN APPROPRIATELY TRAINED PERSON TO COLLECT ALL WATER SAMPLES.		
1.2.1	A PRE-CONSTRUCTION CONFERENCE IS AN OPPORTUNITY FOR ALL INTERESTED PARTIES TO		ENVIRONMENTAL HARM		
	DISCUSS CRITICAL ISSUES, SUCH AS:		1.12.1 BEST PRACTICE SITE MANAGEMENT REQUIRES ESTABLISHMENT OF APPROPRIATE INCIDENT		
	<ul> <li>- KEY OBJECTIONS OF THE EROSION AND SEDIMENT CONTROL PLAN (ESCP);</li> <li>- REQUIRED WATER QUALITY OBJECTIVES;</li> </ul>		REPORTING PROCEDURES, INCLUDING: - IDENTIFYING THE CHAIN OF RESPONSIBILITY;		
	- MONITORING AND INSPECTION PROCEDURES; - IDENTIFICATION OF THE RESPONSIBLE SITE OFFICERS;		- PROCEDURES FOR RECORDING AREAS OF NON-COMPLIANCE;		
	- IDENTIFICATION OF CRITICAL ENVIRONMENTAL CONCERNS;		- MONTHLY REPORTING PROCEDURES (IF REQUIRED); - PROCEDURES FOR RECORDING CORRECTIVE ACTIONS;		
	- REPORTING PROCEDURES FOR NON-COMPLIANCE ACTIVITIES AND EVENTS.		- INTERNAL RECORDING AND FILING PROCEDURES.		
SITE OF	FICE CONTRACTOR OF THE PROPERTY OF THE PROPERT		ESSENTIAL ESC MATERIALS		
1.3.1	LIMIT SITE ENTRY TO THE MINIMUM NUMBER OF LOCATIONS.		1.13.1 STOCKPILE ALL NECESSARY MATERIALS TO ESTABLISH AND MAINTAIN THE SITE'S EROSION		
1.3.2	STABILISE ALL SITE ENTRY AND EXIT POINTS.		AND SEDIMENT CONTROL (ESC) MEASURES.		
1.3.3	LOCATE THE SITE OFFICE AS CLOSE AS POSSIBLE TO THE SITE ENTRANCE TO MINIMISE THE DISTANCE VISITORS NEED TO TRAVEL THROUGH THE SITE.		1.13.2 MAINTAIN ADEQUATE SUPPLIES OF EMERGENCY ESC MATERIALS SUCH AS: STRAW BALES, WIRE, STAKES, SEDIMENT FENCE FABRIC, FILTER CLOTH, WIRE MESH, AND CLEAN		
1.3.4	WHEREVER PRACTICAL, ENSURE ROOF WATER FROM BUILDINGS AND SHEDS WILL NOT CAUSE		AGGREGATE.		
	UNNECESSARY EROSION OR SOIL WETNESS, ESPECIALLY WITHIN COMMON TRAFFIC AREAS.				
SITE SIG	SNAGE		SEDIMENT CONTROL NEEDING MAINTENANCE  1.14.1 ENSURE ALL EROSION AND SEDIMENT CONTROL MEASURES ARE MAINTAINED IN PROPER		
1.4.1	ASSESS THE NEED FOR SITE SIGNAGE TO HELP:		1.14.1 ENSURE ALL EROSION AND SEDIMENT CONTROL MEASURES ARE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES.		
	- MINIMISE DAMAGE TO THE SITE'S EROSION AND SEDIMENT CONTROL MEASURES; - MINIMISE DAMAGE TO BUFFER ZONES AND RETAINED VEGETATION; AND		1.14.2 ENSURE ALL MATERIALS, WHETHER SOLID OR LIQUID, REMOVED FROM ESC DEVICES DURING MAINTENANCE ARE DISPOSED OF IN A MANNER THAT DOES NOT CAUSE ONGOING SOIL		
	- REMIND SITE PERSONNEL OF THE IMPORTANCE OF APPROPRIATE ENVIRONMENTAL		EROSION OR ENVIRONMENTAL HARM.		
1.4.2	MANAGEMENT WITHIN THE SITE. THE NEED FOR SIGNS WILL VARY FROM LOCATION TO LOCATION DEPENDING ON SITE		1.14.3 ENSURE APPROPRIATE WRITTEN RECORDS ARE KEPT ON THE SITE'S MONITORING AND MAINTENANCE ACTIVITIES.		
1.7.2	CONDITIONS AND ENVIRONMENTAL RISKS.		WAINTENANCE ACTIVITIES.		
			CLEAN-UP EQUIPMENT		
	FILE MANAGEMENT		1.15.1 ENSURE SUFFICIENT MATERIALS EXIST ON-SITE, OR WITHIN WORK VEHICLES, TO CLEAN-UP		
1.5.1 1.5.2	ESTABLISH ALL NECESSARY STOCKPILE AREAS.  ASSESS THE NEED FOR:		ACCIDENTAL SEDIMENT SPILLS AND THE LIKE.  1.15.2 THE CLEAN-UP EQUIPMENT AND MATERIALS REQUIRED FOR A SITE WILL NEED TO BE		
1.5.2	- DRAINAGE CONTROLS UP-SLOPE OF STOCKPILES (E.G. IF DRAINAGE AREA >1500 SQ. M);		ASSESSED ON A CASE-BY-CASE BASIS BASED ON THE ASSESSED ENVIRONMENTAL RISK.		
	<ul> <li>EROSION CONTROLS ON STOCKPILES, SUCH AS MULCH, SOIL BINDERS, OR TARPS;</li> <li>SEDIMENT CONTROLS DOWN-SLOPE OF STOCKPILES (E.G. SEDIMENT FENCE OR FILTER</li> </ul>				
	FENCE)		PROPER CLEAN-UP PROCEDURES  1.16.1 ENSURE THE SITE'S CLEAN-UP PROCEDURES ARE CONDUCTED IN A MANNER THAT DOES NOT		
1.5.3	WHERE APPROPRIATE, INSTALL BOUNDARY FENCING TO REDUCE UNAUTHORISED DUMPING OF EARTH AND RUBBISH ON THE SITE.		CAUSE ENVIRONMENTAL HARM.		
			1.16.2 SEALED ROADWAYS SHOULD ONLY BE WASHED/FLUSHED IN CIRCUMSTANCES WHERE SWEEPING HAS FAILED TO REMOVE SUFFICIENT SEDIMENT, AND THERE IS A COMPELLING		
WASTE	CONCRETE RECEPTOR		NEED TO REMOVE THE REMAINING SEDIMENT (E.G. FOR SAFETY REASONS)		
1.6.1	IF SIGNIFICANT CONCRETING IS TO OCCUR ON THE SITE, THEN ESTABLISH A CONCRETE DISPOSAL AREA(S) ENCLOSED BY PERMEABLE, EARTH FILTER-BANKS, OR OTHER		1.16.3 IN ALL CASES, ALL REASONABLE AND PRACTICAL MEASURES MUST BE TAKEN TO MINIMISE		
	APPROPRIATE FILTER SYSTEMS.		ENVIRONMENTAL AND SAFETY RISKS.		
1.6.2	ENSURE THESE AREAS ARE WELL SIGNED SO THAT CONTRACTORS AND DELIVERY DRIVERS WILL BE ABLE TO IDENTIFY THEIR LOCATION		PREPARING A SITE FOR THE EXPECTED WEATHER CONDITIONS		
	WEE BEARBLE TO IBERTIN TO THEIR EGOATHOR		1.17.1 A WELL-MANAGED SITE IS A SITE THAT IS APPROPRIATELY PREPARED FOR BOTH LIKELY AND		
WASTE	MANAGEMENT		UNLIKELY (BUT POSSIBLE) WEATHER CONDITIONS.  1.17.2 ONLY IN THOSE REGIONS WHERE EXTENDED PERIODS OF DRY WEATHER CAN BE ANTICIPATED		
1.7.1	ESTABLISH WASTE COLLECTION AREAS.		WITH HIGH CERTAINTY CAN EROSION AND SEDIMENT CONTROL MEASURES BE REDUCED TO A		
1.7.2	CONTROL POLLUTANT RUNOFF FROM THESE AREAS.		MINIMUM.		
1.7.3	ENSURE APPROPRIATE STORAGE OF CHEMICAL AND FUELS (E.G. AS1940: THE STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS).				
1.7.4	WHERE NECESSARY, ESTABLISH DRIP PANS, OR SIMILAR (E.G. FILTER CLOTH SHEETING) IN		OUTE INTODEOTION AND MONITODING		
	VEHICLE MAINTENANCE AREAS TO CONTROL POLLUTION RUNOFF FROM ROAD SURFACING EQUIPMENT AND THE LIKE.		SITE INSPECTION AND MONITORING		
			2.1.1 ALL EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE INSPECTED:		
LITTER (	CONTROL		- AT LEAST DAILY WHEN RAIN IS OCCURING;		
1.8.1	ENSURE RESPONSIBLE ENVIRONMENTAL MANAGEMENT PROCEDURES ARE FOLLOWED AT ALL TIMES, INCLUDING CONTROLLING THE HANDLING OF ALL POTENTIAL CONTAMINANTS, SUCH AS:		- AT LEAST WEEKLY (EVEN IF WORK IS NOT OCCURING ON-SITE); - WITHIN 24 HOURS PRIOR TO EXPECTED RAINFALL; AND		
	- LITTER;		- WITHIN 18 HOURS OF A RAINFALL EVENT OF SUFFICIENT INTENSITY AND DURATION TO CAUSE		
	- CONCRETE/CEMENT; - OIL AND FUEL;		ON-SITE RUNOFF.		
	- SAND, SOIL AND SEDIMENT; - ORGANIC MULCHES, AND FERTILISERS.		WATER SAMPLES UPSTREAM AND DOWNSTREAM		
1.8.2	REMIND ALL WORKERS THAT POLLUTION CONTROL IS EVERY ONES RESPONSIBILITY.		2.2.1 SITE INSPECTIONS NEED TO BE CONDUCTED DURING BOTH DRY AND WET WEATHER.		
			2.2.2 SITE INSPECTIONS SHOULD BE CONDUCTED BY THE NOMINATED ESC OFFICERS, OR POSSIBLY		
STAFF T	RAINING		ON LARGE OR HIGH-RISK SITES, A THIRD-PARTY INSPECTOR.  2.2.3 ON LARGE OR HIGH-RISK SITES, MONITORING IS LIKELY TO INCLUDE SPECIFIC WATER QUALITY		
1.9.1	SITE INDUCTION COURSES NEED TO INCORPORATE INFORMATION ON ENVIRONMENTAL MANAGEMENT AND INCIDENT REPORTING.		SAMPLING AND DETAILED LOGBOOK ENTRIES OF THE SITE'S MONITORING AND MAINTENANCE		
1.9.2	ENSURE EMPLOYEES RECEIVE ADEQUATE TRAINING ON:		ACTIVITIES.		
	- WORK PLACE HEALTH AND SAFETY ISSUES; - ENVIRONMENTAL MANAGEMENT;		DIRTY WATER RUNOFF		
	- BEST PRACTICE EROSION AND SEDIMENT CONTROL PRACTICES;		2.3.1 WHEN A SITE INSPECTION DETECTS A NOTABLE FAILURE IN THE ADOPTED ESC MEASURES,		
	<ul> <li>- INCIDENT REPORTING PROCEDURES;</li> <li>- SITE INSPECTION AND MAINTENANCE PROCEDURES (SELECTED STAFF ONLY).</li> </ul>		THE SOURCE OF THIS FAILURE MUST BE INVESTIGATED, AND APPROPRIATE AMENDMENTS MADE TO THE SITE AND THE ESC PLANS.		
			2.3.2 ON SITES WITH A SOIL DISTURBANCE GREATER THAN 0.25HA, A FORMAL 'MONITORING AND		
SITE INS	SPECTIONS .		MAINTENANCE PROGRAM' SHOULD BE PREPARED PRIOR TO SITE ESTABLISHMENT.		
1.10.1	NOMINATE THE OFFICER(S) RESPONSIBLE FOR ON-SITE EROSION AND SEDIMENT CONTROL MEASURES.		EROSION AND SEDIMENT CONTROL PLAN		
1.10.2	MEASURES. ESTABLISH AND APPROPRIATE SITE INSPECTION ROUTINE, AS WELL AS MAINTENANCE AND		2.4.1 EROSION AND SEDIMENT CONTROL PLANS (ESCPS) ARE LIVING DOCUMENTS THAT CAN, AND		
	REPORTING PROCEDURES.		SHOULD, BE MODIFIED IF: - SITE CONDITIONS CHANGE; OR		
1.10.3	IDENTIFICATION TAGS, SUCH AS A STRIP OF FILTER CLOTH STAPLED TO SEDIMENT FENCE FABRIC, CAN BE USED TO IDENTIFY THOSE MEASURES REQUIRING MAINTENANCE.		- THE ADOPTED MEASURES FAIL TO ACHIEVE THE REQUIRED TREATMENT STANDARD (E.G. THE		
			WATER QUALITY OBJECTIVES).		
	SURVEY	SCALES (A1)	DRAWN SIGNED DATE DIRECTOR		
	SURVEY FILE No		DESIGNED SIGNED DATE ENGINEERING AND COMMERCIAL INFRASTRUCTURE		
	SURVET FILE NO				

FILE NAME \STANDARD DRAWINGS\A1-27001

LEVEL DATUM

MERIDIAN

DRAWN APPROVED

NO. DATE

DESCRIPTION

AMENDMENTS AND REVISIONS

CHECKED

SIGNED

MANAGER TECHNICAL SERVICES

ORIGINAL SIGNED BY

G. HAWES RPEQ 5693

DATE

13/1/14

DATE

JASON DEVITT

DATE

2.4.2	CONDUCTING REGULAR SITE INSPECTIONS AND ENSURING THAT PROFESSIONAL WATER	REFERENCE
	QUALITY MONITORING OCCURS, ARE TWO WAYS OF ENSURING THE ESCP REMAINS RELEVANT TO THE SITE CONDITIONS.	
VEG	ETATION MANAGEMENT	STANDARD DRAWING REFERENCE
3.1.1	ESTABLISH ANY NON-DISTURBANCE OR EXCLUSION AREAS IDENTIFIED WITHIN THE EROSION AND SEDIMENT CONTROL PLAN OR VEGETATION MANAGEMENT PLAN (VMP).	
3.1.2	WHERE APPROPRIATE, IDENTIFY, ISOLATE AND/OR PROTECT RETAINED VEGETATION.	
3.1.3	ENSURE ALL LOCAL AND STATE GOVERNMENT APPROVALS ARE OBTAINED BEFORE ANY DISTURBANCE OCCURS TO VEGETATION, AND THEN DISTURB ONLY THE MINIMUM NECESSARY TO COMPLETE THE WORKS.	
VEGETA	ATION PROTECTION	
3.2.1	WHERE APPROPRIATE, PREPARE A VEGETATION MANAGEMENT PLAN PRIOR TO COMMENCEMENT OF ANY ON-SITE WORKS.	
3.2.2	ESTABLISH TREE PROTECTION ZONES AROUND RETAINED VEGETATION. SUCH ZONES ARE USUALLY DETERMINED AS A MINIMUM OF 10 TIMES THE TRUNK DIAMETER (MEASURED AT AN ELEVATION OF 1M FROM THE GROUND), OR THE WIDTH OF THE TREE CANOPY AT ITS WIDEST POIN, WHICHEVER IS THE GREATER.	
3.2.3	CLEARLY IDENTIFY ANY VEGETATION PROTECTED BY GOVERNMENT VEGETATION PROTECTION ORDERS (VPOs).	
UNDESI	RABLE TREE TRUNK DAMAGE	
3.3.1	TRUNK DAMAGE IS TO BE AVOIDED, AS IT CAN RESULT IN LONG-TERM VEGETATION PROBLEMS.	
3.3.2	MINIMISE CHANGES IN GROUND ELEVATION (CUT OR FILL) ADJACENT TO RETAINED VEGETATION.	
3.3.3	IF LAND RESHAPING MUCH OCCUR ADJACENT TO RETAINED VEGETATION, THEN IT MUST BE PERFORMED IN A MANNER THAT WILL NOT ISOLATE PLANTS FROM ESSENTIAL SOIL MOISTURE (REFER PARKS & ENVIRONMENT - ARBORICULTURE DEPT.)	
SOIL PR	EPARATION	
3.4.1		
3.4.2	ENSURE REVEGETATION IS CARRIED OUT BY QUALIFIED CONTRACTORS.	
3.4.3	ENSURE ALL POTTED PLANTS ARE STORED IN APPROPRIATE CONDITIONS PRIOR TO THEIR PLANTING.	
3.4.4	ENSURE THE SOILS ARE TESTED, AND WHERE NECESSARY, ADJUSTED PRIOR TO PLANTING.	
ΙΔΝΙ	O CLEARING	STANDARD
_/ (  4		DRAWING REFERENCI
4.1.1	LAND CLEARING SHOULD NOT OCCUR UNLESS PRECEDED BY THE INSTALLATION OF ALL NECESSARY DRAINAGE AND SEDIMENT CONTROL MEASURES. THE EXCEPTION WOULD BE ANY LAND CLEARING NECESSARY TO ALLOW INSTALLATION OF THESE CONTROL MEASURES.	
4.1.2	SELECTIVE CLEARING SHOULD AIM TO RETAIN A VARIETY OF SPECIES AND PLANTS OF VARYING AGES, WITH AN EMPHASIS ON HEALTHY PLANTS, PLANTS WITH HABITAT VALUE, AND GROUPS OF TREES.	
4.1.3	LAND CLEARING SHOULD BE STAGED TO MINIMISE THE EXTENT AND DURATION OF SOIL EXPOSURE.	
4.1.4	SEQUENTIAL CLEARING PROVIDES MANY ADVANTAGES FOR EROSION AND SEDIMENT CONTROL, AND CAN ALSO IMPROVE THE 'NATURAL' RELOCATION OF LOCAL WILDLIFE.	

SITE INSPECTION AND MONITORING

STANDARD

DRAWING REFERENCE

A4-00326

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STANDARD DRAWING REFERENCE

.1.3 LAND CLEARING SHOULD BE STAGED TO MINIMISE THE EXTENT AND DURATION OF SOIL EXPOSURE.
.1.4 SEQUENTIAL CLEARING PROVIDES MANY ADVANTAGES FOR EROSION AND SEDIMENT CONTROL, AND CAN ALSO IMPROVE THE 'NATURAL' RELOCATION OF LOCAL WILDLIFE.
REE HOLLOWS
.2.1 PARTIALLY HOLLOW TREES (DEAD OR LIVING) OFTEN NEED TO BE SAVED FOR THE HABITAT VALUE THESE TREES PROVIDE TO LOCAL WILDLIFE.
AND CLEARING WITHOUT ROOT GRUBBING
.3.1 IF VEGETATION CLEARING MUST BE CARRIED OUT WELL IN ADVANCE OF EARTHWORKS, THEN THIS CLEARING SHOULD BE LIMITED TO THE REMOVAL OF ABOVEGROUND WOODY MATERIAL ONLY.
.3.2 WHEREVER REASONABLE AND PRACTICAL, THE GRUBBING AND THE REMOVAL OF ANY GROUND COVER (MULCH OR VEGETATION) SHOULD NOT COMMENCE UNTIL IMMEDIATELY PRIOR TO EARTHWORKS OCCURRING WITHIN THAT STAGE OF WORKS.
MULCH BERM SEDIMENT CONTROL MEASURE
.4.1 WHEREVER REASONABLE AND PRACTICAL, CLEARED VEGETATION SHOULD BE MULCHED FOR USE ON THE SITE AS AN EROSION CONTROL AID, AND TO SATISFY LANDSCAPING REQUIREMENTS.
.4.2 TUB GRINDING OF CLEARED VEGETATION IS BE USED IN LIEU OF CHIPPING PROCESSES, WHEREVER POSSIBLE.

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ORIGINAL SIGNED BY	
ASON DEVITT	Mackay
ATE <u>17/1/14</u>	REGIONAL COUNCIL

STANDARD

SHEET 1 OF 6

**EROSION & SEDIMENT CONTROL NOTES** SHEET 1 OF 6

WORKS JOB No. DRAWING No. AMEND.

STANDARD

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