

Contact: Alex Beavis Phone: 02 4904 2527

Fax:

Email: alex.beavis@dpi.nsw.gov.au

Our ref: 20 ERM2016/0352

File No:

Your Ref: 2016/00444

Ms Shay Louise Riley-Lewis PEP Consulting Level 1 PO BOX 3717 Tuggerah NSW 2259

Via e-mail: shay@pepconsulting.com.au

14 August 2017

Dear Ms Riley-Lewis,

Re: Controlled activity approval – 20 ERM2016/0352

For activity described as: Remediation of site for change of use to golf course To be carried out at: 90 Vale Street Shortland NSW 2307 - 'Lorna St' Site

Date of Issue 14 August 2017: Date of Expiry 13 August 2020.

I refer to your application for a controlled activity approval under the Water Management Act 2000 which was received at this office on 16 June 2017. Receipt of your application fee of \$1391 is also acknowledged.

1. Controlled activity approval

DPI Water has determined to grant you a controlled activity approval. Please find enclosed the Notice of Determination together with your Statement of Approval.

Please read carefully the conditions of the approval and seek clarification from DPI Water for any condition not fully understood.

A copy of this approval and any annotated documentation should be provided to council, your certifier and to all contractors engaged in the implementation of this controlled activity or the Vegetation Management Plan (VMP) to ensure they are also aware of the conditions.

The controlled activity approval must be kept current until the controlled activity has been completed. Applications for extending the approval should be made to DPI Water, in writing, at least one month prior to the expiry date on the approval.

2. Inspections and fees

As the approval holder, you are required to notify DPI Water on completion of the controlled activity. A site inspection may be needed to confirm that all of your obligations under the controlled activity approval have been carried out.

Costs associated with a single inspection may be covered by the application fee. However, if extra inspections or significant reassessment is required then additional fees will be incurred.

Fees will also apply to any amendments requested or any extension of this approval. The current fee schedule is available at: www.water.nsw.gov.au > Water licensing > Approvals > Controlled activities.

3. Other approvals may be required

Subject to the conditions of the attached Statement of Approval, the approval holder is only authorised to carry out the controlled activity described at the location specified.

The attached Statement of Approval does not relieve the approval holder of any obligation which may exist to also obtain permission / approval / consent from any other agency who may have some form of control over the site or the proposed development.

14-08-2017

Any questions regarding this correspondence should be directed to **Algis Sutas**, **algis.sutas@dpi.nsw.gov.au**.

Yours sincerely

Alexander Beavis on behalf of Algis Sutas

Senior Water Regulation Officer

Deario

NSW Department of Primary Industries - Water

Enc:

Notice of Determination Statement of Approval



Notice of Determination

issued under the Water Management Act 2000

Application details

Approval Number 20 ERM2016/0352

First applicant Programmed Turnpoint Pty Ltd

Address 1A Fuji Cres MORNINGTON VIC 3931

Contact Ms Shay Louise Riley-Lewis

Postal Address PEP CONSULTING, Level 1, 140 King St NEWCASTLE, NSW, 2300

Email shay@pepconsulting.com.au

Determination

Application type Controlled Activity Approval

to be issued under Part 3, Chapter 3 of the Water Management Act 2000 - for matters assessed as integrated development under Part 4 of the Environmental

Planning & Assessment Act 1979

Determination

☐ Granted (subject to conditions)

☐ Refused

Phone: 0402 302 537

Date of Determination

Reasons for Determination

14 August 2017

This controlled activity approval is granted on the basis that DPI Water is satisfied the proposed development has adequate arrangements in place to ensure that no more than minimal harm will be done to waterfront land at this site as a consequence of carrying out the proposed controlled activity.

This controlled activity approval is subject to the attached conditions.

Date of Expiry

13 August 2020

Location

Shortland Waters Golf Club - 90 Vale Street Shortland NSW 2307 - 'Lorna

St' Site

Description of activity

Remediation of site for change of use to golf course - associated drainage

& riparian corridor

Determining Officer

Signature

14-08-2017

Name

Alexander Beavis on behalf of Algis Sutas

by delegation from the Minister administering the

Water Management Act 2000

Right of Appeal: Section 368 of the *Water Management Act 2000* gives a right of appeal in certain circumstances. As this application has been assessed as <u>integrated development</u> it will not be subject to any third party rights of appeal under the *Water Management Act 2000*. This does not affect any right of appeal an objector may be entitled to under section 98 of the *Environmental Planning and Assessment Act, 1979*.



Water Management Act 2000

Approval details

Approval No: 20 ERM2016/0352 File No:

Status:

CURRENT *

Approval type:

Controlled Activity Approval

Water sharing plan:

not applicable

Period of Approval

Date of effect:

14 August 2017

Expiry date:

13 August 2020

Approval holder(s):

Schedule 1

Description of activity:

Schedule 2

Conditions:

Schedule 3

Contact for service of documents

Name: Ms Shay Louise Riley-Lewis

Address:

PEP CONSULTING, Level 1, 140 King St NEWCASTLE, NSW, 2300

NOTE: An approval has effect for such period as is specified in the approval, or if the period is extended under section 105 of the Water Management Act 2000, that extended period. If an application for extension of an approval is lodged before the approval expires, the term of the expiring approval is extended until either the date of the final decision on the application, or a date fixed by the Minister for the approval, whichever is the later date. An approval which has expired can be the subject of an application to extend it but it needs to be accompanied by a written declaration of the reasons for the delay in making the application. If the Minister accepts these reasons the term of the approval is taken to have been extended, and the application may be dealt with, as if the application had been made before the approval expired.

It is an offence under the Water Management Act 2000 to breach a term or condition of the approval or to construct or carry out a controlled activity to which the approval does not relate, or if the approval has expired, been surrendered or cancelled.



Water Management Act 2000

Schedule 1 - Approval holder(s)

Holder's name(1):

Programmed Turnpoint Pty Ltd

Postal Address:

1A Fuji Cres

Town/City

State VIC **P/Code** 3931

MORNINGTON

Programmed Turnpoint Pty Ltd

ACN (if applicable):

156 503 338

Office Address:

Company Name:

As above

Property/land owner's details

Name of Owner/s (1)

Shortland Waters Golf Club

Postal Address:

90 Vale St

Town/City
SHORTLAND

State

P/Code

NSW

2307

IMPORTANT NOTICE - Change of approval holder or landholder or contact person.

Please advise DPI Water (formerly the NSW Office of Water) in the event of any of the following as soon as practicable:

- If there is a change in the ownership or occupation of the land benefited by this approval (see Schedule 2). Under the Water Management Act 2000, an approval is typically held by the owner or lawful occupier of the benefited land. Consequently, a change in ownership may cause a change in your legal obligations as an approval holder. *
- If there is a change to the contact person or their contact details. You will be required to lodge a
 written statement signed by all the approval holders. *
- If there is a change in the mailing address for the nominated contact person. This should be done by the contact person in writing.
- * An updated Statement of Approval reflecting these changes will be issued free of charge.



Water Management Act 2000

Approval details

Approval No: 20 ERM2016/0352

File No:

Status: CURRENT *

Approval type: Controlled Activity Approval

Water sharing plan: not applicable

Period of Approval

Date of effect:

14 August 2017

Expiry date:

13 August 2020

Approval holder(s):

Schedule 1

Description of activity:

Schedule 2

Conditions:

Schedule 3

Contact for service of documents

Name:

Ms Shay Louise Riley-Lewis

Address:

PEP CONSULTING, Level 1, 140 King St NEWCASTLE, NSW, 2300

NOTE: An approval has effect for such period as is specified in the approval, or if the period is extended under section 105 of the Water Management Act 2000, that extended period. If an application for extension of an approval is lodged before the approval expires, the term of the expiring approval is extended until either the date of the final decision on the application, or a date fixed by the Minister for the approval, whichever is the later date. An approval which has expired can be the subject of an application to extend it but it needs to be accompanied by a written declaration of the reasons for the delay in making the application. If the Minister accepts these reasons the term of the approval is taken to have been extended, and the application may be dealt with, as if the application had been made before the approval expired.

It is an offence under the Water Management Act 2000 to breach a term or condition of the approval or to construct or carry out a controlled activity to which the approval does not relate, or if the approval has expired, been surrendered or cancelled.



Water Management Act 2000

Schedule 1 - Approval holder(s)

Holder's name(1):

Programmed Turnpoint Pty Ltd

Postal Address:

1A Fuji Cres

MORNINGTON

Town/City

State

VIC

P/Code 3931

Company Name:

Programmed Turnpoint Pty Ltd

ACN (if applicable):

156 503 338

Office Address:

As above

Property/land owner's details

Name of Owner/s (1)

Shortland Waters Golf Club

Postal Address:

90 Vale St

Town/City

State

P/Code

SHORTLAND

NSW

2307

IMPORTANT NOTICE - Change of approval holder or landholder or contact person.

Please advise DPI Water (formerly the NSW Office of Water) in the event of any of the following as soon as practicable:

- If there is a change in the ownership or occupation of the land benefited by this approval (see Schedule 2). Under the Water Management Act 2000, an approval is typically held by the owner or lawful occupier of the benefited land. Consequently, a change in ownership may cause a change in your legal obligations as an approval holder. *
- If there is a change to the contact person or their contact details. You will be required to lodge a
 written statement signed by all the approval holders. *
- If there is a change in the mailing address for the nominated contact person. This should be done by the contact person in writing.
- * An updated Statement of Approval reflecting these changes will be issued free of charge.



Water Management Act 2000

Schedule 2 – Controlled activity

Authorised Controlled Activity

Subject to the conditions of this approval, in relation to the controlled activity described, the holders of this approval are authorised to construct and carry out the

controlled activity at the location specified:

Controlled activity: Remediation of site for change of use to golf course - associated drainage & riparian

corridor

Site address: Shortland Waters Golf Club 90 Vale Street Shortland NSW 2307 - 'Lorna St' Site

Lot 10

DP 1149782

Parish: Newcastle

County: Northumberland

Lot 2

DP 1215916

Parish: Newcastle

County: Northumberland

Local Council:

Newcastle City Council

Development

Reference:

DA/2016/00444

(if applicable)

Catchment name:

Application fees

Fee:

\$ 1391

has been paid exclusive of GST

Receipt No:

PAP1193078

Approval issued by

Officer's name

Algis Sutas



Water Management Act 2000

Schedule 3 Conditions:

In relation to the controlled activity described in Schedule 2, the holders of this approval are authorised to construct and carry out the controlled activity at the location specified subject to the conditions listed:

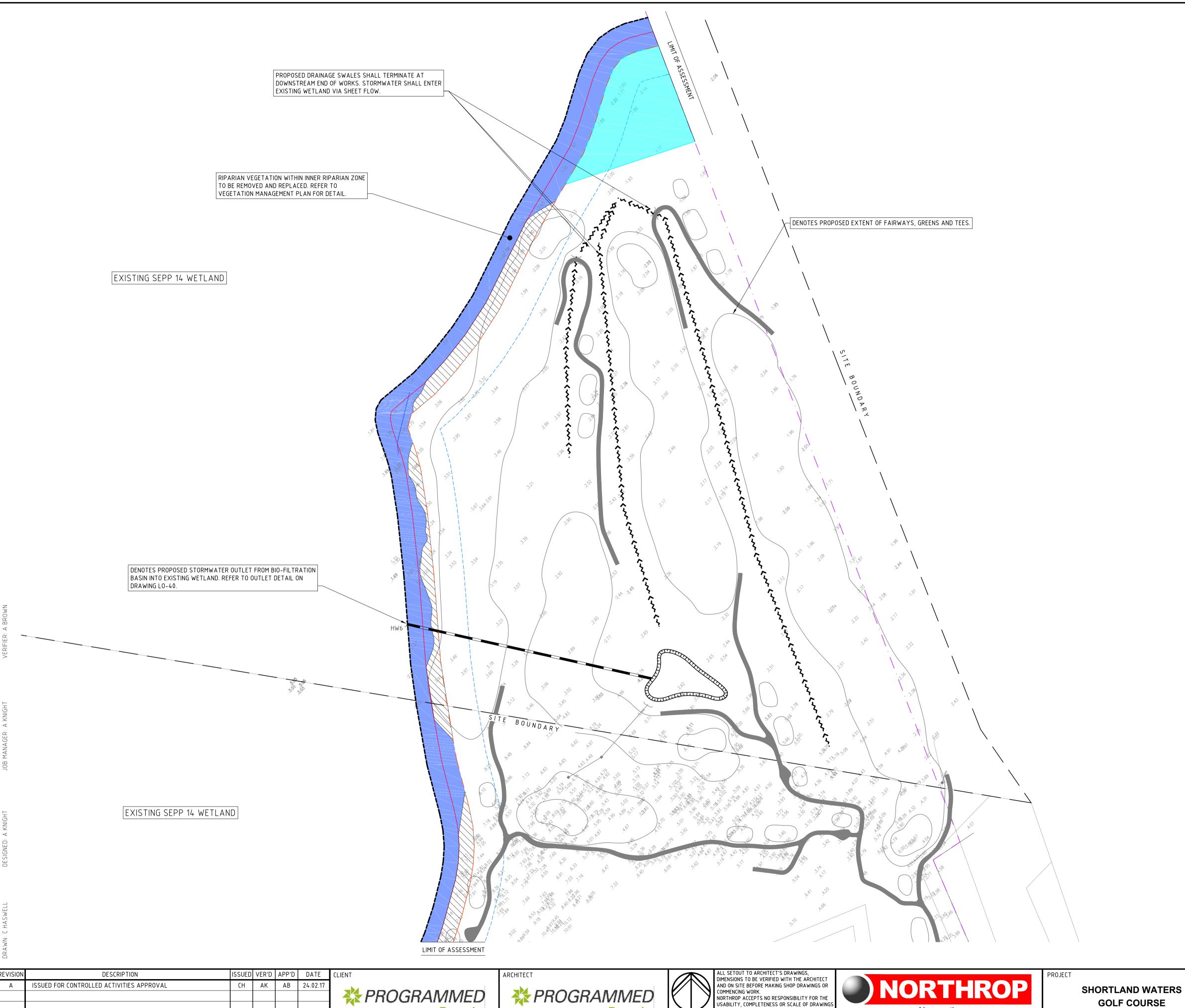
Number	Condition			
Plans, sta	ndards and guidelines			
1	This Controlled Activity Approval number 20 ERM2016/0352 only applies to the controlled activity carried out at the location indicated in schedule 2. This Controlled Activity Approval does not permit controlled activities at any other site.			
2	The approval holder must not transfer this Controlled Activity Approval 20 ERM2016/0352 without the written approval of DPI Water.			
3	The approval holder must keep a copy of the current Controlled Activity Approval 20 ERM2016/0352 on site at all times and make this approval available to officers from DPI Water on request.			
4	If the controlled activities described in this Controlled Activity Approval 20 ERM2016/0352, have not commenced or been completed within the period of this approval, the approval holder must apply to DPI Water for a new approval or seek an extension prior to the lapsing of the consent.			
5	The approval holder must notify DPI Water in writing within 14 calendar days of any change in i. site management; ii. land ownership; iii. land occupation.			
6	 The approval holder must comply with the requirements of each of the plans as follows: Plan titled "OFFICE OF WATER SITE PLAN – SHORTLAND WATERS GOLF COURSE" prepared by Programmed Turnpoint (Job no. NL150017, Drawing number L0-30, Revision B dated 24.05.2017 Plan titled "SHORTLAND WATERS MARKER LAYER PLAN" prepared by Programmed Turnpoint (Drawing no. YP – L09, drawn by JT, Rev. No. 3 dated MARCH 2017 Plan titled "VEGETATION MANAGEMENT PLAN – Shortland Waters Golf Course" prepared by Programmed Turnpoint (Job no. NL150017, Drawing number L0-30, Revision A dated 24.02.2017 Plan titled "CONSTRUCTION PHASE MANAGEMENT PLAN (CPMP) LORNA - STREET LOT 10 DP 1149782" prepared by PEP Consulting dated 22.6.2017 Plan titled "EROSION AND SEDIMENT CONTROL PLAN" prepared by Programmed Turnpoint (Job no. NL150017, Drawing numbers L0-10 & L0-11, Revision C dated 24.05.2017 			
7	The approval holder must submit for approval, by DPI Water, any amendments to a plan listed in Condition prior to carrying out any works in relation to the approved controlled activity.			
8	The approval holder must clearly mark on the ground, the boundaries of the areas where the controlled activity is to be carried out before commencement of the controlled activity, and maintain the markings until the works are completed.			
9	The approval holder must only carry out any installation, relocation or construction of communications, sewer, electricity, gas or other utilities that involve excavation of waterfront land in accordance with plans			

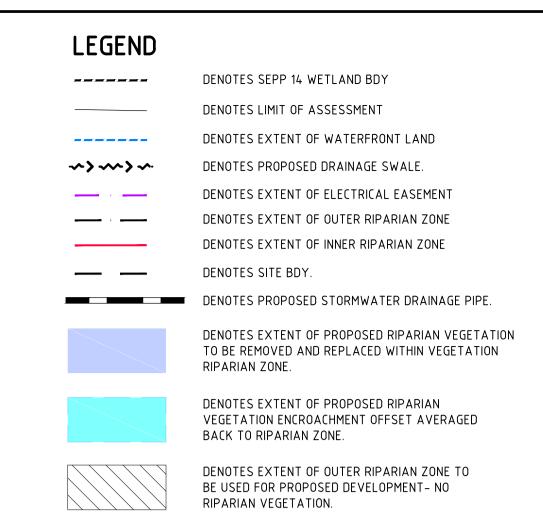


Statement of Approval Water Management Act 2000

11	The approval holder must complete a maintenance period of two (2) years after final planting for all areas		
	described in the Vegetation Management Plan listed in Condition 6 above		
12	The approval holder must submit survey plans to a professional standard of work as executed, and any oth information required by DPI Water within 14 days of completion of the Controlled activities		
13	At practical completion and/or at the end of the maintenance period, the approval holder must provide a final written report to DPI water evidencing completion of the approved controlled activity.		
14	The approval holder must provide a report on the implementation of the Vegetation Management Plan (VMP) to DPI water at the completion of the revegetation works and at every three (3) months up to the end of the maintenance period that must include:		
	 i. a schedule and map showing the vegetation species, number and location of initial and any replacement plantings and propagation materials, and ii. the date of planting of vegetation, and 		
	iii. the percentage Cover of groundcover, shrubs, trees and weeds, and		
	iv. any problems that impacted on the survival rates of plants including climatic, fire, flooding and vandalism, and		
	v. map of the location of any staged activities, and photographs showing the revegetation works during the reporting period		
15	The approval holder must provide a progress report on all works undertaken to DPI Water every three (3) months		
16	The approval holder must notify DPI Water in writing within seven (7) days if the controlled activity		
	 i. ceases for a period of more than 30 calendar days; or ii. is terminated before its full completion, or iii. is resumed. 		
17	The approval holder must not leave materials which could obstruct the flow of water or damage river banks on waterfront land at any time		
18	The approval holder must remove surplus material when operations cease and the controlled activity is completed.		
19	The approval holder must not put materials in the drainage line or river or in any area that has existing native		
	vegetation and/or that is identified as part of the riparian corridor.		
20	i. implement erosion and sediment control measures in accordance with the requirements of the Managing Urban Stormwater Manual, Volume 1 Soils and Construction (Landcom, 4th Edition March 2004) and to the satisfaction of DP Water prior to any works commencing at the site, and ii. maintain the control measures for the duration of the approval to prevent sediment and dirty water entering the waterway.		
21	The approval holder must not compromise the implementation of the Vegetation Management Plan (VMP)		

CAA - Statement of Approval Page 5 of 5





FOR DETAILS SEE DRAWING LO-40

SUMMARY OF AREAS IN RIPARIAN ZONE		
ZONE	AREA (Ha)	
RIPARIAN VEGETATION TO BE REMOVED AND REPLACED WITHIN VR	1.04	
OUTER RIPARIAN ZONE TO BE USED FOR PROPOSED DEVELOPEMENT- NO RIPARIAN VEGETATION	0.39	
PROPOSED RIPARIAN VEGETATION ENCROACHMENT OFFSET AVERAGED BACK TO RIPARIAN ZONE.	0.39	

DRAWINGS FOR DETAILS.

DENOTES CART PATH. REFER TO ARCHITECTURAL

NOTE: REFER TO LANDSCAPE PLANS FOR PROPOSED MODIFICATION TO LEVELS WITHIN WATERFRONT LAND.

NOT FOR CONSTRUCTION

NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. Newcastle
Suite 4, 215 Pacific Hwy, Charlestown NSW 2290
P.O. Box 180, Charlestown NSW 2290 Turnpoint PLANS 1:1250 0 Ph (02) 4943 1777 Fax (02) 4943 1577 THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION



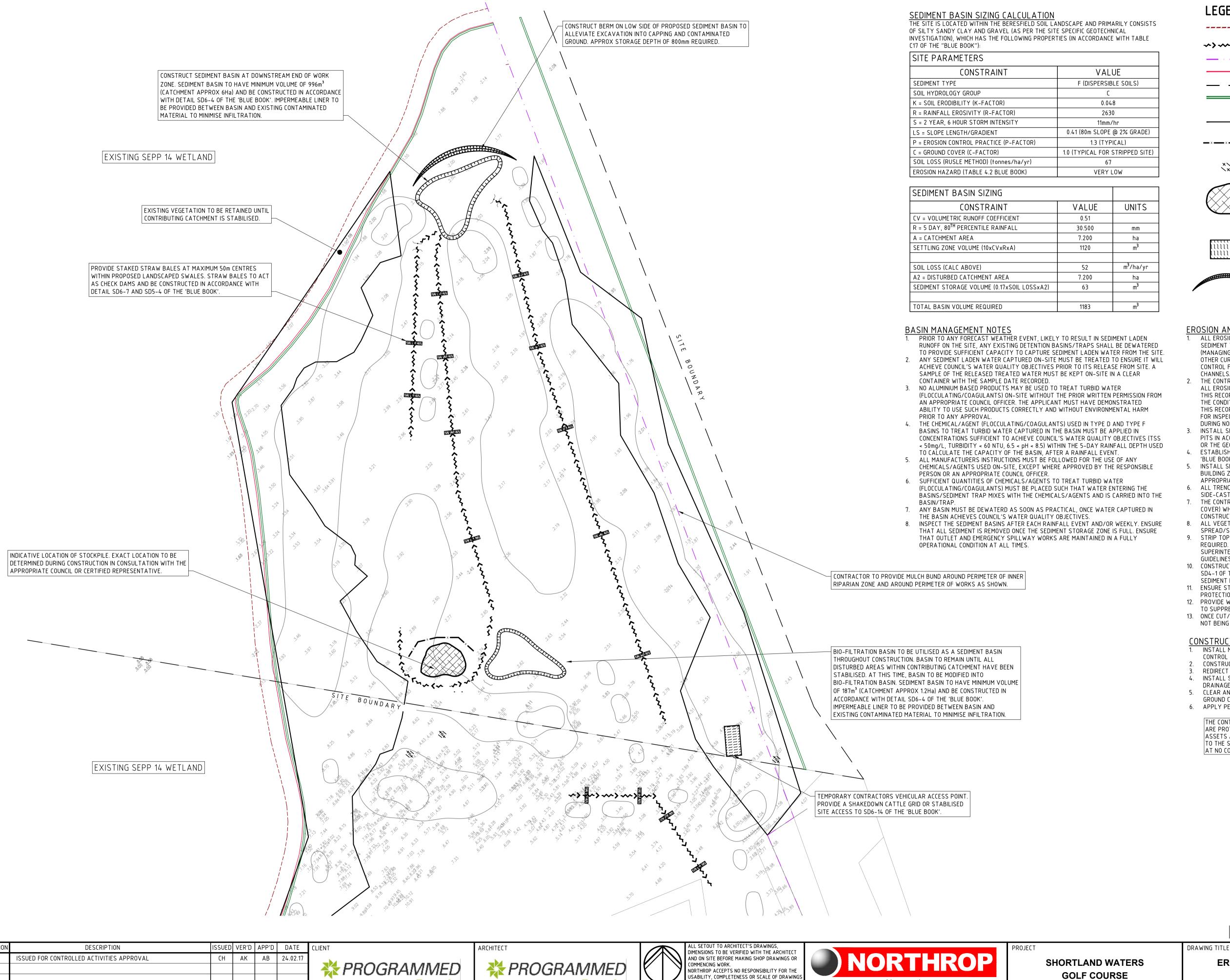
Email newcastle@northrop.com.au ABN 81 094 433 100

GOLF COURSE

DRAWING TITLE OFFICE OF WATER SITE PLAN

NL150017 DRAWING NUMBER

DRAWING SHEET SIZE = A1



Turnpoint

THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION

TRANSFERRED ELECTRONICALLY

PLANS 1:1250

Newcastle Suite 4, 215 Pacific Hwy, Charlestown NSW 2290

P.O. Box 180, Charlestown NSW 2290 Ph (02) 4943 1777 Fax (02) 4943 1577

Email newcastle@northrop.com.au ABN 81 094 433 100

LEGEND

~>~~>~

DENOTES SEPP 14 WETLAND BDY

DENOTES PROPOSED DRAINAGE SWALE.

DENOTES EXTENT OF ELECTRICAL EASEMENT DENOTES EXTENT OF INNER RIPARIAN ZONE

DENOTES SITE BDY.

DENOTES MULCH BUND

DENOTES SEDIMENT CONTROL FENCE.

DENOTES GEOTEXTILE INLET FILTER IN ACCORDANCE



WITH DETAIL SD 6-12 OF THE 'BLUE BOOK'.



DENOTES PROPOSED STOCKPILE LOCATION.

DENOTES CATCHMENT BYPASSING BASINS.



DENOTES STABILISED SITE ACCESS.



DENOTES SEDIMENT BERM

EROSION AND SEDIMENTATION CONTROL NOTES

- ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE APPROPRIATE FOR THE SEDIMENT TYPE(S) OF THE SOILS ON-SITE, IN ACCORDANCE WITH THE 'BLUE BOOK' (MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION. LANDCOM, 2004), OR OTHER CURRENT RECOGNISED INDUSTRY STANDARDS FOR EROSION AND SEDIMENT CONTROL FOR AUSTRALIAN CONDITIONS. THIS INCLUDES SEDIMENT TRAPS AND LINING OF
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING A DETAILED WRITTEN RECORD OF ALL EROSION AND SEDIMENT CONTROLS ON-SITE DURING THE CONSTRUCTION PERIOD. THIS RECORD SHALL BE UPDATED ON A DAILY BASIS AND SHALL CONTAIN DETAILS ON THE CONDITION OF CONTROLS AND ANY/ALL MAINTENANCE, CLEANING AND BREACHES. THIS RECORD SHALL BE KEPT ON-SITE AT ALL TIMES AND SHALL BE MADE AVAILABLE FOR INSPECTION BY THE PRINCIPAL CERTIFYING AUTHORITY AND THE SUPERINTENDENT DURING NORMAL WORKING HOURS. INSTALL SEDIMENT PROTECTION FILTERS ON ALL NEW AND EXISTING STORMWATER INLET
- PITS IN ACCORDANCE WITH EITHER THE MESH AND GRAVEL INLET FILTER DETAIL SD6-11 OR THE GEOTEXTILE INLET FILTER DETAIL SD6-12 OF THE 'BLUE BOOK'. 4. ESTABLISH ALL REQUIRED SEDIMENT FENCES IN ACCORDANCE WITH DETAIL SD6-8 OF THE
- INSTALL SEDIMENT FENCING, OR OTHER SEDIMENT CONTROL DEVICES, AROUND INDIVIDUAL BUILDING ZONES/AREAS AS REQUIRED AND AS DIRECTED BY THE SUPERINTENDENT OR APPROPRIATE COUNCIL OFFICER.
- 6. ALL TRENCHES INCLUDING ALL SERVICE TRENCHES AND SWALE EXCAVATION SHALL BE SIDE-CAST TO THE HIGH SIDE AND CLOSED AT THE END OF EACH DAYS WORK. 7. THE CONTRACTOR SHALL ENSURE THAT ALL VEGETATION (TREE, SHRUB & GROUND COVER) WHICH IS TO BE RETAINED SHALL BE PROTECTED DURING THE DURATION OF CONSTRUCTION.
- ALL VEGETATION TO BE REMOVED SHALL BE MULCHED ON-SITE AND
- SPREAD/STOCKPILED AS DIRECTED BY THE SUPERINTENDENT.
- 9. STRIP TOPSOIL IN AREAS DESIGNATED FOR STRIPPING AND STOCKPILE FOR RE-USE AS REQUIRED. ANY SURPLUS MATERIAL SHALL BE SPREAD ON-SITE AS DIRECTED BY THE SUPERINTENDENT OR REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH EPA GUIDELINES.
- 10. CONSTRUCT AND MAINTAIN ALL MATERIAL STOCKPILES IN ACCORDANCE WITH DETAIL SD4-1 OF THE 'BLUE BOOK' (INCLUDING CUT-OFF SWALES TO THE HIGH SIDE AND SEDIMENT FENCES TO THE LOW SIDE).
- 11. ENSURE STOCKPILES DO NOT EXCEED 2.0m HIGH. PROVIDE WIND AND RAIN EROSION PROTECTION AS REQUIRED IN ACCORDANCE WITH THE 'BLUE BOOK'.
- 12. PROVIDE WATER TRUCKS OR SPRINKLER DEVICES DURING CONSTRUCTION AS REQUIRED TO SUPPRESS DUST.
- 13. ONCE CUT/FILL OPERATIONS HAVE BEEN FINALIZED ALL DISTURBED AREAS THAT ARE NOT BEING WORKED ON SHALL BE RE-VEGETATED AS SOON AS IS PRACTICAL.
- CONSTRUCTION SEQUENCE
- INSTALL MULCH BUND TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN AND NEWCASTLE CITY COUNCIL'S REQUIREMENTS.
- CONSTRUCT STABILISED SITE ACCESS REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE WHERE POSSIBLE.
- INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT NATURAL AND MAN-MADE
- DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED. CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO GRASS AND LOW
- GROUND COVER OF NON-DISTURBED AREAS. 6. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).

THE CONTRACTOR SHALL ENSURE COUNCIL ASSETS AND THE UTILITIES ARE PROTECTED AT ALL TIMES. ANY AND ALL DAMAGES TO COUNCIL

ASSETS AND/OR UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SPECIFICATION OF COUNCIL AND THE UTILITIES AUTHORITY AND AT NO COST TO THE PRINCIPAL OR NORTHROP CONSULTING ENGINEERS.

NOT FOR CONSTRUCTION

EROSION AND SEDIMENT

CONTROL PLAN

NL150017 DRAWING NUMBER

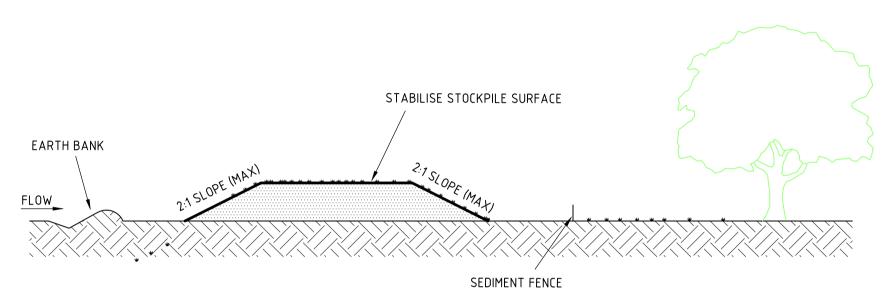
DRAWING SHEET SIZE = A1

STABILISED SITE ACCESS WITH SHAKER RAMP

N.T.S.

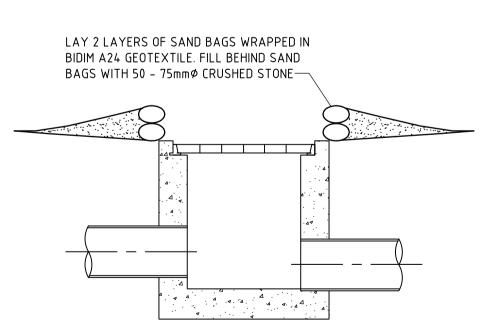
STABILISED SITE ACCESS WITH SHAKER RAMP CONSTRUCTION NOTES:

- 1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE. 2. THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A
- 50mm DEEP SPACE BETWEEN PLANKS. 3. ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
- 4. ALTERNATIVELY, PRECAST CONCRETE CATTLE GRIDS MAY BE USED. 1, 2 & 3 ABOVE ALSO APPLY.



STOCKPILES (SD 4-1)

- 1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
- CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
- WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
- 4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
- 5. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2 METRES DOWNSLOPE.



PIT PROTECTION DETAIL

(ALTERNATIVE DETAIL SD6-11 OR SD6-12 OF THE BLUE BOOK AS APPROPRIATE)

INSTALL PIT PROTECTION TO ALL NEW & EXISTING STORMWATER PITS.

KE VISION	DESCRIP TIC
Α	ISSUED FOR CONTROLLED ACTIVITIES

****** PROGRAMMED

DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION

SIGNATURE HAS BEEN ADDED



THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP

CONSULTING ENGINEERS PTY LTD.

ALL SETOUT TO ARCHITECT'S DRAWINGS, DIMENSIONS TO BE VERIFIED WITH THE ARCHITECT AND ON SITE BEFORE MAKING SHOP DRAWINGS OR COMMENCING WORK. NORTHROP ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY.



GOLF COURSE

SHORTLAND WATERS

DRAWING TITLE **EROSION AND SEDIMENT**

NL150017 **CONTROL DETAILS**

NOT FOR CONSTRUCTION

DRAWING NUMBER REVISION DRAWING SHEET SIZE = A1

REVISION ISSUED VER'D APP'D DATE CH | AK | AB | 24.02.17 S APPROVAL

DETAILS 1:20 0 200 400 600 800 1000