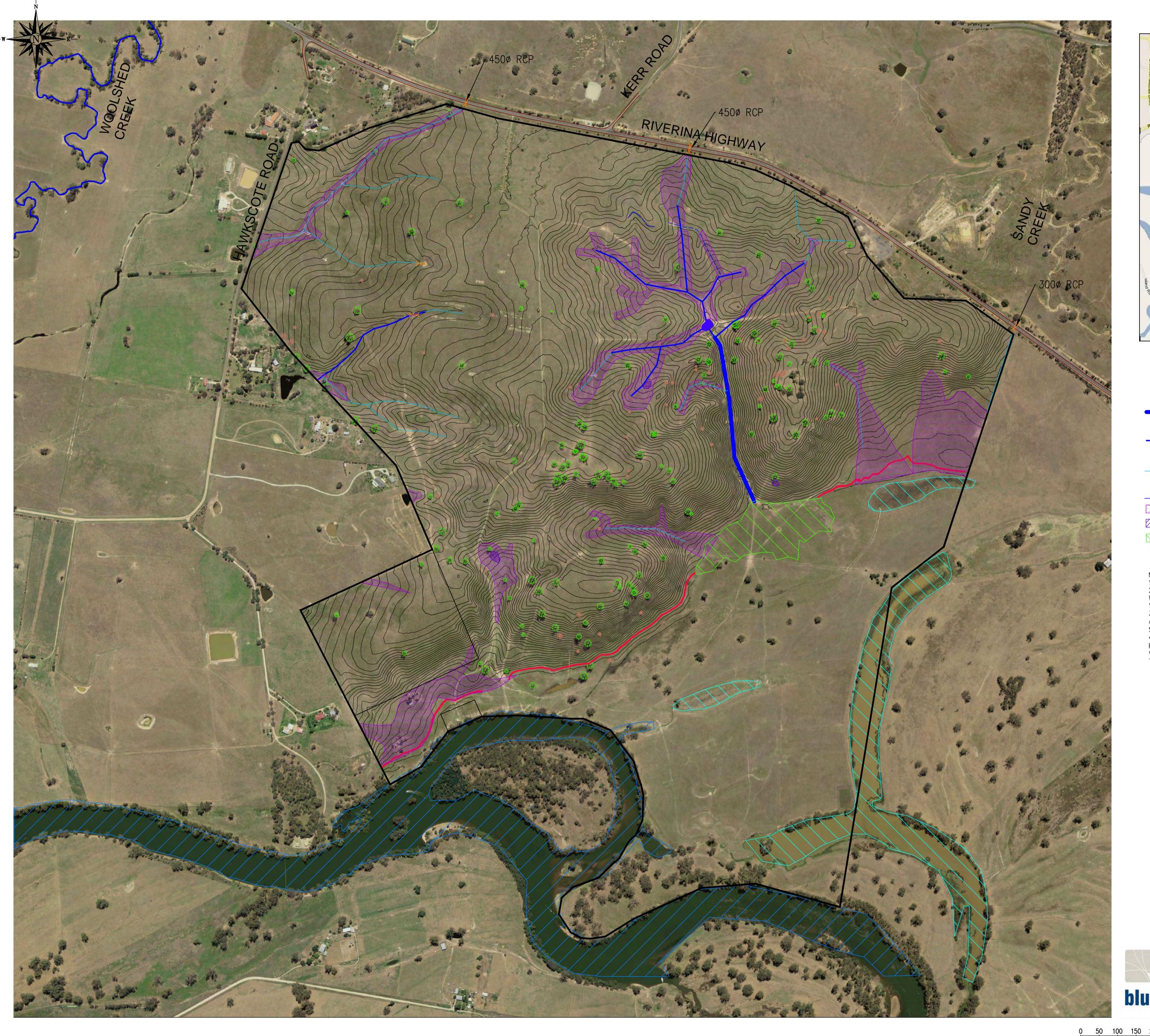
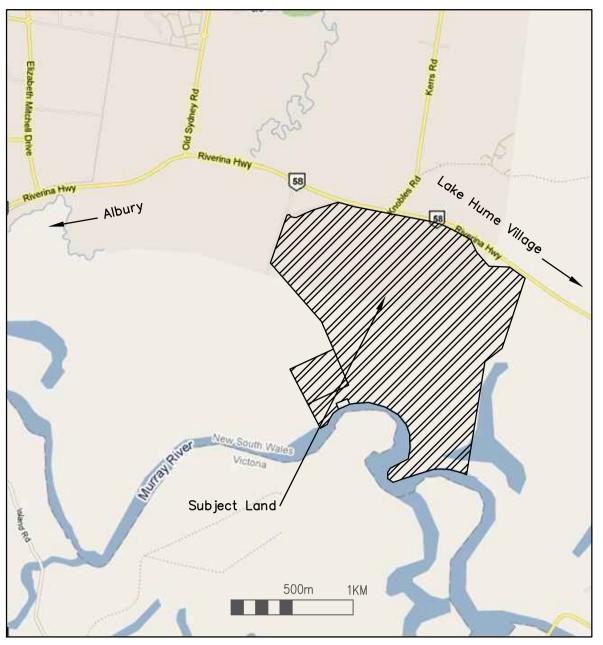


LOCALITY PLAN RIVERINA HIGHWAY HAWKSCOTE ROAD NOTES - SOIL GROUPS SOIL MAPPING INFORMATION HAS BEEN SOURCED FROM SOIL CONSERVATION SERVICE NSW (1977). INDICATIVE SOIL GROUP AREAS SHOWN ARE BASED ON REGIONAL MAPPING AND HAVE NOT BEEN EXTENSIVELY GROUND-TRUTHED. SOME MINOR DESKTOP CORRECTION FOR TOPOGRAPHICAL FEATURES HAS BEEN UNDERTAKEN. MORE DETAILED SOIL UNIT MAPPING IS BEYOND THE SCOPE OF THE INITIAL CONSTRAINTS MAPPING EXCERCISE. MURRAY RIVER ALLUVIUM OCCUPIES THE IMMEDIATE FLOOD PLAIN OF THE MURRAY RIVER, CONSISTING OF LOW LYING SWAMP AREAS AS WELL AS HIGHER DEPOSITIONAL AREAS. SOILS ARE EXTREMELY VARIABLE BUT GENERALLY CONSIST OF EITHER LAYERED ALLUVIUM, DEEP UNIFORM SAND OR SILTY CLAY OVERLYING SAND. MAY BE SUBJECT TO PERIODIC INUNDATION BY THE MURRAY RIVER AND MAY HAVE A HIGH SHRINK/SWELL POTENTIAL IN SOME AREAS OF CLAY. ST JOHNS GROUP DOMINATES THE CRESTS OF LOW HILLS THROUGHOUT THE WIRLINGA AND TABLE TOP AREAS. GENERALLY ASSOCIATED WITH SMALL GRANITIC OUTCROPS NEAR RIDGE TOPS OR MAY OVERLIE YELLOW CLAYS FURTHER DOWN SLOPE. SOILS ARE PREDOMINANTLY RED EARTHS: THE MAIN SOIL TYPE CONSISTS OF A CLAY LOAM A HORIZON OVER A RED SILTY OR LIGHT CLAY, BECOMING HEAVIER WITH DEPTH. THIS OVERLIES A C HORIZON OF WEATHERED GRANITE ON HILL CRESTS OR A B2 HORIZON OF YELLOW MEDIUM CLAY FURTHER DOWN SLOPE. DEPRESSIONS WITHIN THOSE AREAS MAPPED AS ST JOHNS GROUP MAY INCLUDE ISOLATED AREAS OF SOIL FROM THE WIRLINGA GROUP, WHICH ARE SUBJECT TO MODERATE/HIGH SHRINK/SWELL. ETTAMOGAH GROUP OCCUPIES EXTENSIVE MID-FLAT SLOPE AREAS ON UNDULATING COUNTRY BETWEEN ETTAMOGAH AND THURGOONA. SOILS ARE YELLOW PODZOLIC SOILS THAT OCCUR LOWER DOWN THE SLOPE COMPARED WITH THE ST JOHNS GROUP. SOILS CONSISTS OF A LOAM A HORIZON OVERLYING LIGHT TO MEDIUM CLAY B HORIZON THAT USUALLY CONTAINS RED MOTTLES. A NON BLEACHED SHALLOW A2 HORIZON IS GENERALLY PRESENT. B INCORPORATE BLUEPRINT COMMENTS <u>LEGEND</u> A SOILS AND EROSION **AMENDMENTS** PRINTED: 09/05/2011 BY: NEIL BURBIDGE =====CONTOUR PM, MK & JM STAR SOIL GROUPS (INDICATIVE) MURRAY RIVER ALUVIUM PROJECT REFERENCE: 40421 ST JOHNS GROUP ETTAMOGAH GROUP EROSION CLASSIFICATION ACTIVE EROSION MINOR OR HISTORIC EROSION MURRAY RIVER (APPROX) LAGOON (APPROX) SJE Consulting SUITE 2, 490 DAVID ST. ALBURY, N.S.W. 2640 PH:(02) 60217233, FAX.:(02) 60412579. EMAIL: CONSULTING@SJE.COM.AU SOILS & EROSION ANALYSIS **DESIGN:** ADAM DYDE DRAWN: NEIL BURBIDGE 50 100 150 200 250 300 350 400 450 500(m) CHECKED: ADAM DYDE REVISION DRAWING NO. 40421-C02 © THESE DRAWINGS ARE THE INTELLECTUAL PROPERTY OF SJE CONSULTING. COPYRIGHT RESERVED - NO PORTION OF THESE DRAWINGS MAY BE REPRODUCED BY ANY PROCESS WHATSOEVER WITHOUT THE WRITTEN CONSENT OF SJE CONSULTING. IF IN DOUBT ASKI **SCALE:** 1:5000 SHEET: 2 OF 10



LOCALITY PLAN



<u>LEGEND</u>

INTERMITTENT WATERCOURSE COMPRISING A NATURAL CHANNEL (WATER MANAGEMENT ACT 2000)

---- DRAINAGE LINE ('ALBURY 8225-N', 'GRANYA 8325-N') (1:50 000 TOPOGRAPHIC MAP SERIES) MINOR DRAINAGE LINE

(STORMWATER OVERLAND FLOW PATH)

--- CONSTRUCTED DRAIN POTENTIALLY WET AREA (SEASONAL)

SPRING (ACTIVE AT TIME OF SURVEY) SEDIMENT DEPOSITION AREA
(FROM INTERMITTENT WATERCOURSE) MURRAY RIVER (APPROX) LAGOON (APPROX)

1% AEP FLOOD LEVEL 160.0m AHD (DECCW)

===== CONTOUR TREE

🗱 DEAD TREE CULVERT

EXISTING DAM

NOTES — (DRAINAGE)

1. WATERCOURSE AND DRAINAGE LINE MAPPING IS INDICATIVE ONLY.

2. WATERCOURSES HAVE BEEN ASSESSED WITH REFERENCE TO THE WATER MANAGEMENT ACT 2000, NSW OFFICE OF WATER GUIDELINES AND 1:50 000 TOPOGRAPHIC MAP SERIES.

3. SPRING ACTIVITY MAY ALTER TO THAT SHOWN, SUBJECT TO SEASONAL AND CLIMATIC FACTORS. ACTIVE SPRINGS OBSERVED AT THE TIME OF SURVEY (MARCH 2011) HAVE BEEN NOTED.

4. POTENTIALLY WET ÁREAS HAVE BEEN INTERPRETED BASED ON AERIAL PHOTOGRAPHY (NEARMAP NOV 2010, JUL 2010, JAN 2010), LOCAL VEGETATION OCCURRENCE AND SITE OBSERVATIONS. THESE MAY VARY TO THAT SHOWN ON THIS MAP.

0	FINAL	09-05-11	NB	
В	INCORPORATE BLUEPRINT COMMENTS	05-04-11	NB	
Α	DRAINAGE	29-03-11	NB	
REV.	AMENDMENTS	DATE	INIT.	
PRINT	PRINTED: 09/05/2011 BY: NEIL BURBIDGE			

CLIENT: PM, MK & JM STAR

PROJECT REFERENCE: 40421



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FLOODING, DRAINAGE LINES, SPRINGS AND DAMS ANALYSIS

blueprint PLANNING & DEVELOPMENT DRAWN: NEIL BURBIDGE DESIGN: ADAM DYDE CHECKED: ADAM DYDE DRAWING NO. REVISION 40421-C04 SHEET: 4 OF 10 **SCALE:** 1:5000

0 50 100 150 200 250 300 350 400 450 500(m)