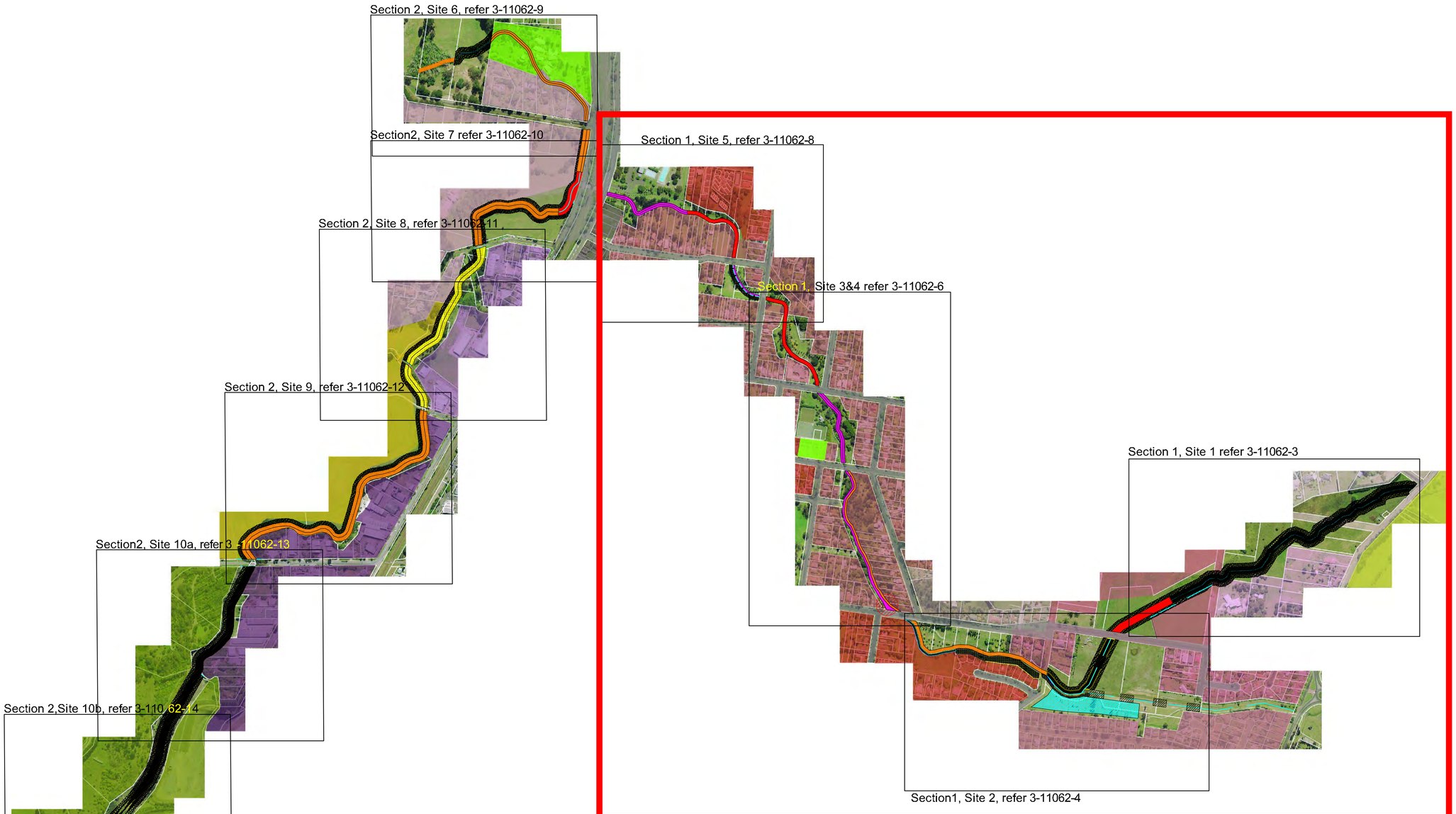
KEY:

- RS1 Public Recreation
- SP2 Infrastructure
- RU4 Rural Small Holdings
- E3 Environmental Management
- IN2 Light Industrial
- R5 Large Lot Residential
- R2 Low Density Residential
- R3 Medium Density Residential
- RE2 Private Recreation
- IN1 General Industrial

- Pioneer Planting
- Supplementary Planting
- Area requires further surveyed detail
- Grass Buffer Strip 5m - 10m Wide
- Riparian Re-construction 10m Wide
- Riparian Re-construction 5m Wide
- Designed Riparian Landscape



NOTE: Drawings not for construction and are indicative only. Any structural bank works to be under approval of Council Engineer or approved Representative.

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A	For Review	27.12.11	RB	CB	DM

CLIENT: **WINGECARRIBEE SHIRE COUNCIL**

PROJECT: **Riparian Management Plan Mittagong Creek**

SCALE: **1:10,000 @ A1**

DRAWING: **Master Plan**

DRAWING CREATED: 28.08.11

AW JOB No.	CAD FILE No.	DWG No.	REV.
AWC3-11062	3-11062	3-11062-1	A

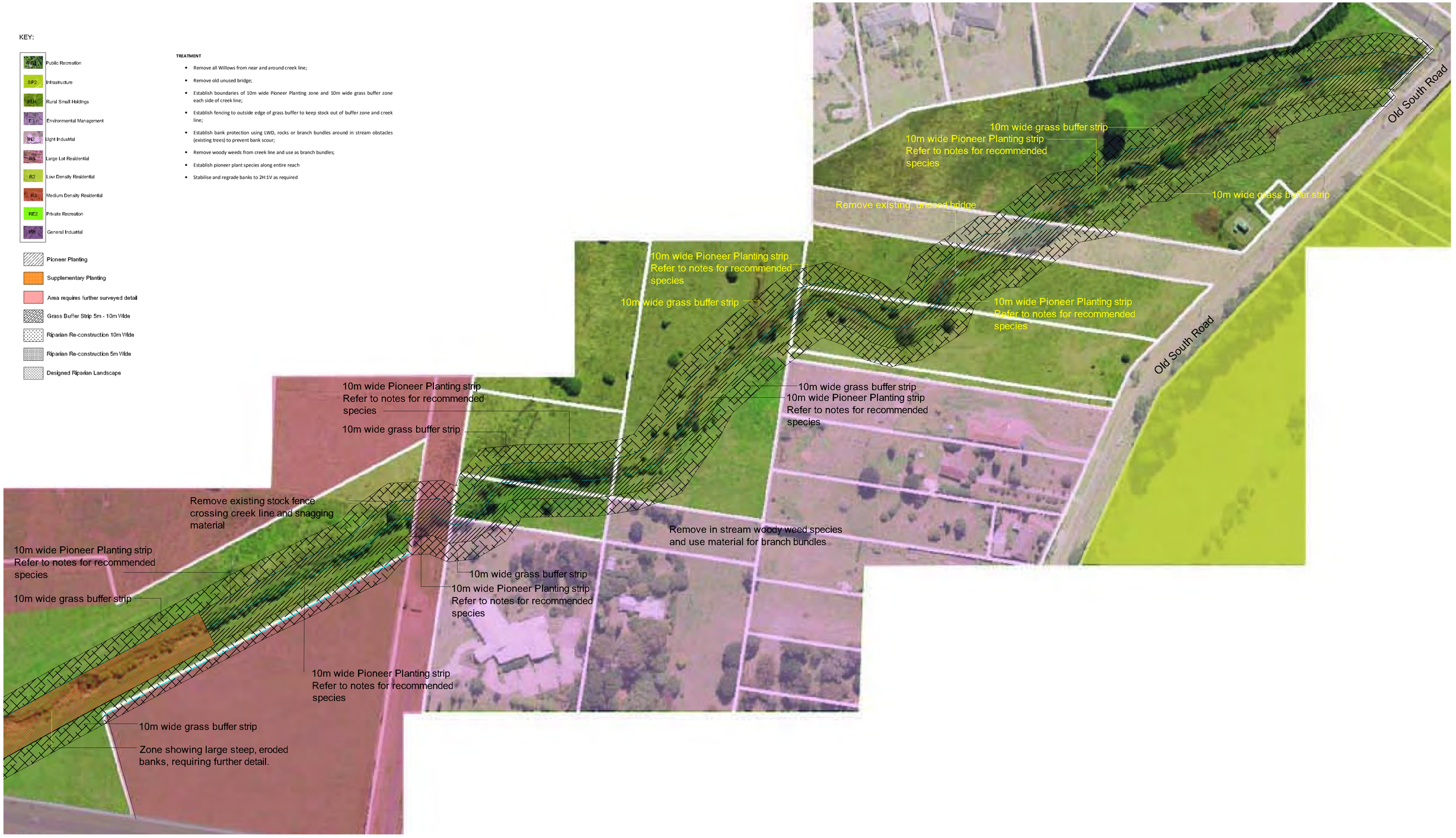
KEY:

- Public Recreation
- Infrastructure
- Rural Small Holdings
- Environmental Management
- Light Industrial
- Large Lot Residential
- Low Density Residential
- Medium Density Residential
- Private Recreation
- General Industrial

- Pioneer Planting
- Supplementary Planting
- Area requires further surveyed detail
- Grass Buffer Strip 5m - 10m Wide
- Riparian Re-construction 10m Wide
- Riparian Re-construction 5m Wide
- Designed Riparian Landscape

TREATMENT

- Remove all Willows from near and around creek line;
- Remove old unused bridge;
- Establish boundaries of 10m wide Pioneer Planting zone and 10m wide grass buffer zone each side of creek line;
- Establish fencing to outside edge of grass buffer to keep stock out of buffer zone and creek line;
- Establish bank protection using LWD, rocks or branch bundles around in stream obstacles (existing trees) to prevent bank scour;
- Remove woody weeds from creek line and use as branch bundles;
- Establish pioneer plant species along entire reach
- Stabilise and regrade banks to 2H:1V as required



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A	For Review	28.01.10	RB	CB	DM

CLIENT:
WINGECARRIBEE SHIRE COUNCIL

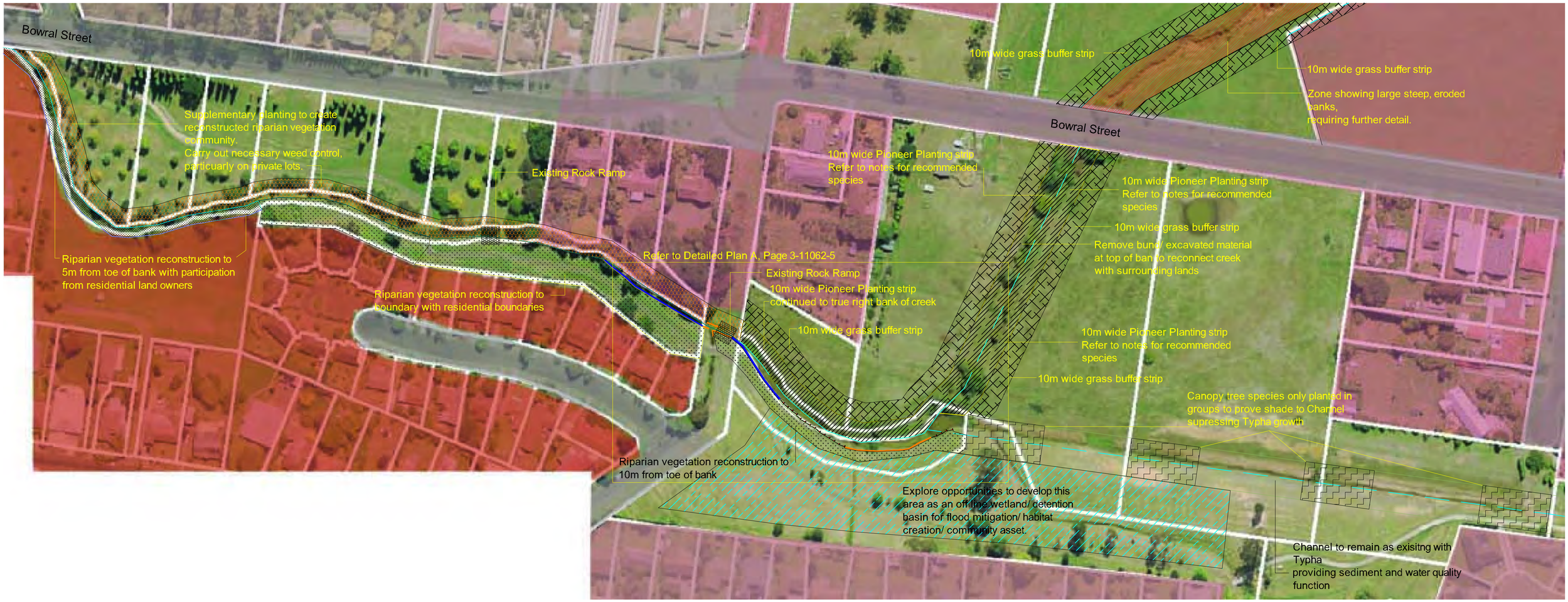
PROJECT
Riparian Management Plan
Mittagong Creek

SCALE
1:750 @A1

DRAWING
Section 1
Site 1

DRAWING CREATED: 28.08.11

AW JOB No.	CAD FILE No.	DWG No.	REV.
AWC3-11062	3-11062	3-11062-3	A



KEY:

- RE1 Public Recreation
- SP2 Infrastructure
- RU4 Rural Small Holdings
- E3 Environmental Management
- IN2 Light Industrial
- R5 Large Lot Residential
- R2 Low Density Residential
- R3 Medium Density Residential
- RE2 Private Recreation
- IN1 General Industrial

- Pioneer Planting
- Supplementary Planting
- Area requires further surveyed detail
- Grass Buffer Strip 5m - 10m Wide
- Riparian Re-construction 10m Wide
- Riparian Re-construction 5m Wide
- Designed Riparian Landscape
- Canopy trees to Constructed Channel

TREATMENT

- Remove all Willows from near and around creek line;
- Remove bunding to top of bank;
- Establish boundaries of 10m wide Pioneer Planting zone and 10m wide grass buffer zone each side of creek line;
- Establish fencing to outside edge of grass buffer to keep stock out of buffer zone and creek line;
- Establish bank protection using LWD, rocks or branch bundles around in stream obstacles (existing trees) to prevent bank scour;
- Remove woody weeds from creek line and use as branch bundles;
- Establish pioneer plant species along entire reach
- Stabilise and regrade banks to 2H:1V as required
- Plant tree canopy species along constructed channel to shade channel
- Undertake bank stabilisation works
- Undertake riparian reconstruction on Council and Private lands
- Undertake supplementary planting
- Continue and undertake weed control

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A	For Review	28.01.10	RB	CB	DM

CLIENT: **WINGECARRIBEE SHIRE COUNCIL**

PROJECT: **Riparian Management Plan Mittagong Creek**

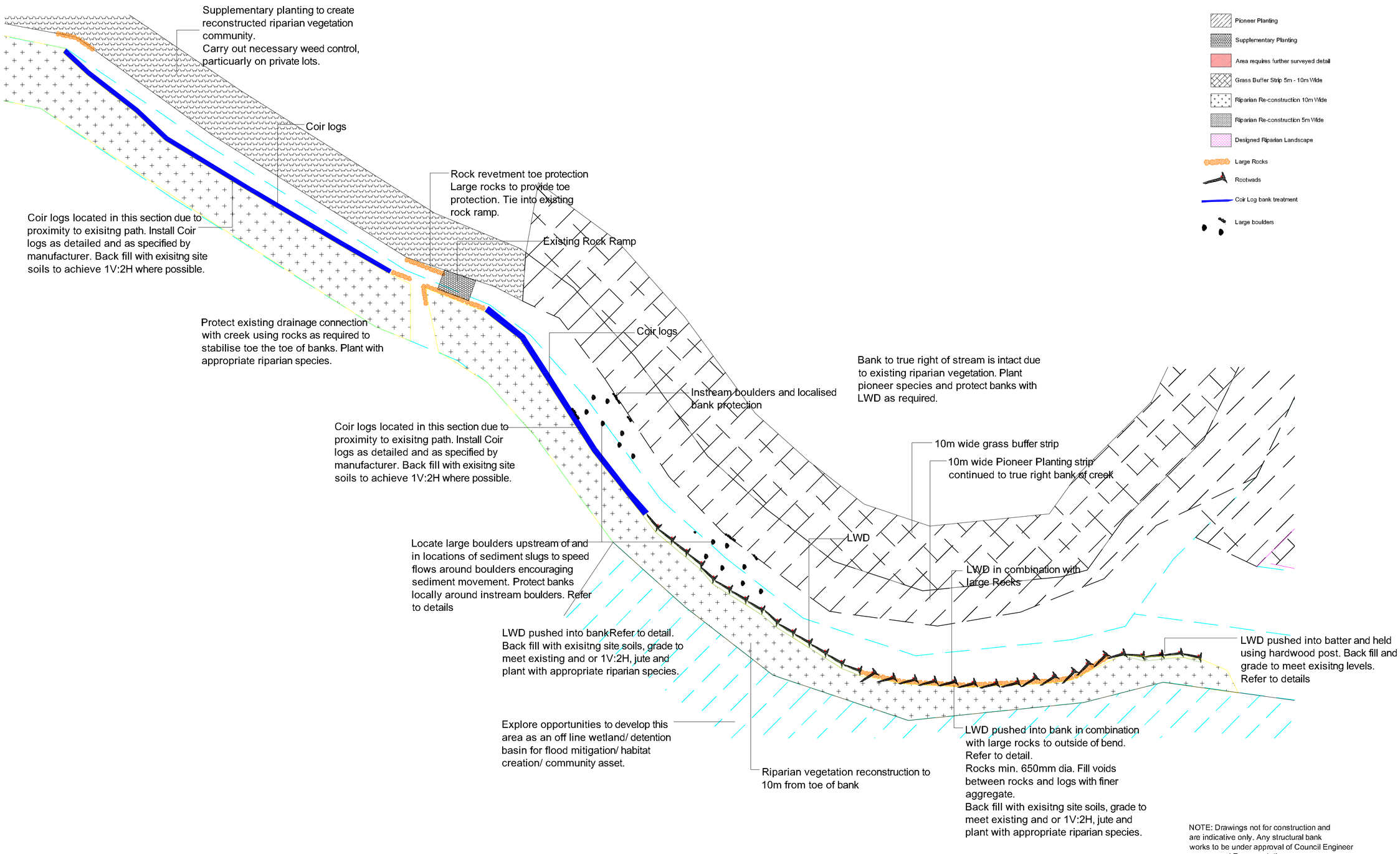
SCALE: **1:750 @ A1**

DRAWING: **Section 1 Site 1 and 2**

DRAWING CREATED: 28.08.11

AW JOB No.	CAD FILE No.	DWG No.	REV.
AWC3-11062	3-11062	3-11062-4	A

Detail Plan A (1:300@A1)



KEY:

- Pioneer Planting
- Supplementary Planting
- Area requires further surveyed detail
- Grass Buffer Strip 5m - 10m Wide
- Riparian Re-construction 10m Wide
- Riparian Re-construction 5m Wide
- Designed Riparian Landscape
- Large Rocks
- Rootwads
- Coir Log bank treatment
- Large boulders

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CLIENT: **WINGECARRIBEE SHIRE COUNCIL**

PROJECT: **Riparian Management Plan Mittagong Creek**

SCALE: **1:300 @ A1**

DRAWING: **Detailed Plan A**

DRAWING CREATED: 28.08.11

AW JOB No.	CAD FILE No.	DWG No.	REV.
AWC3-11062	3-11062	3-11062-5	A

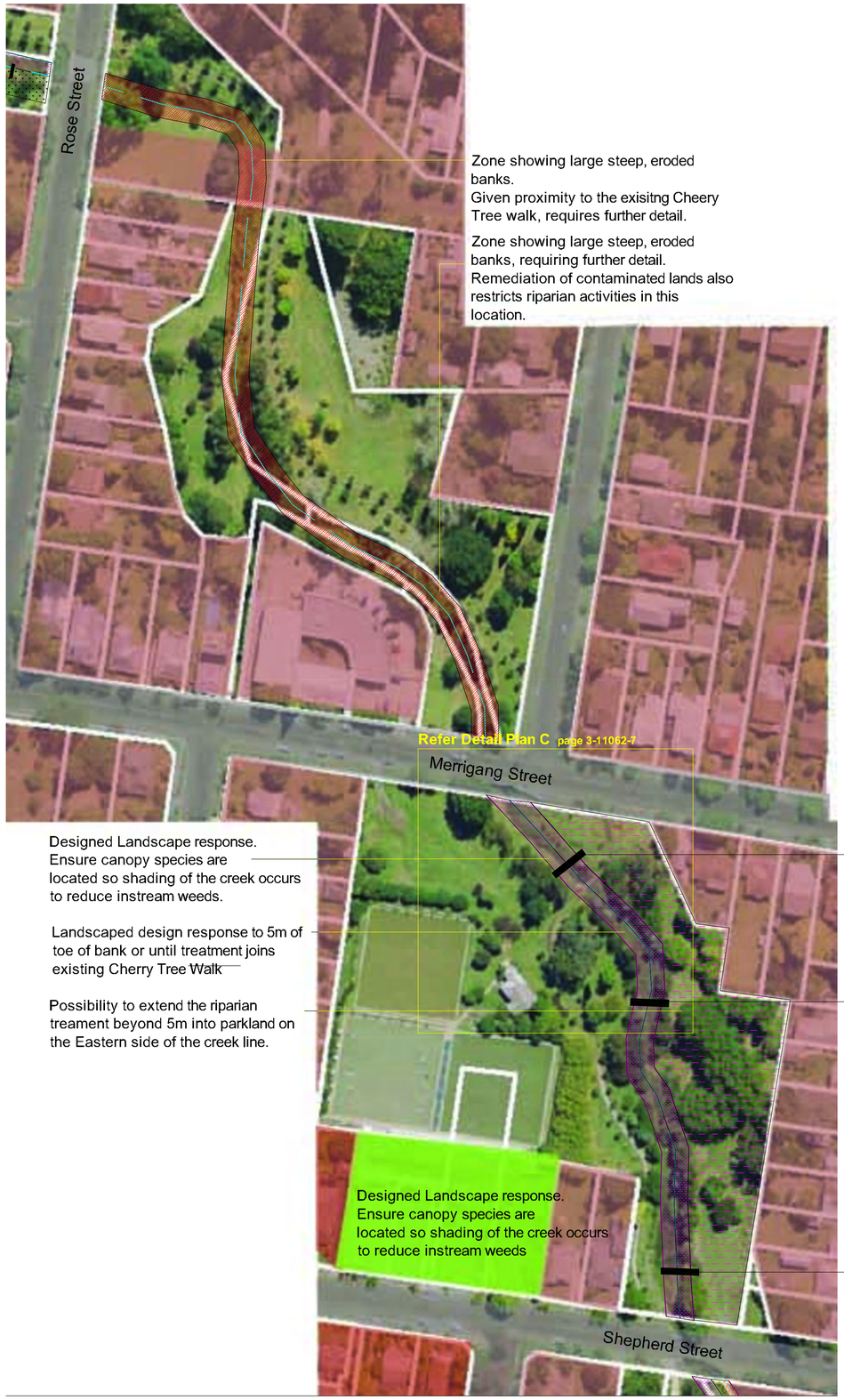
Site 3

Section 3

TREATMENT

- Undertake investigation of stormwater outlet near Bowral St;
- Establish boundaries of 5m min. Designed Landscape treatment to true left bank;
- Undertake weed removal and supplementary planting on true right – private lands;
- Remove woody weeds from creek line;
- Undertake supplementary planting ;
- Continue and undertake weed control;
- Place boulders in creek, as required where sediment slugs have formed.

Site 4



Section 4

TREATMENT

- Establish boundaries of 5m min. Designed Landscape treatment to both embankments;
- Establish/ extend riparian planting into park land on the true left of the creek
- Remove woody weeds from creek line;
- Undertake supplementary planting ;
- Continue and undertake weed control;
- Place boulders in creek, as required where sediment slugs have formed.
- Undertake investigation/ survey to allow detailed design of the creek line from Merrigang St through to Rose St. This area exhibits large exposed, vertical banks, erosion in close proximity to the Cheery Tree Walk and is adjacent to contaminated lands

KEY:

- RE1 Public Recreation
- SP2 Infrastructure
- RU4 Rural Small Holdings
- E3 Environmental Management
- IN2 Light Industrial
- R5 Large Lot Residential
- R2 Low Density Residential
- R3 Medium Density Residential
- RE2 Private Recreation
- IN1 General Industrial

- Pioneer Planting
- Supplementary Planting
- Area requires further surveyed detail
- Grass Buffer Strip 5m - 10m Wide
- Riparian Re-construction 10m Wide
- Riparian Re-construction 5m Wide
- Designed Riparian Landscape

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PROJECT: **Riparian Management Plan Mittagong Creek**

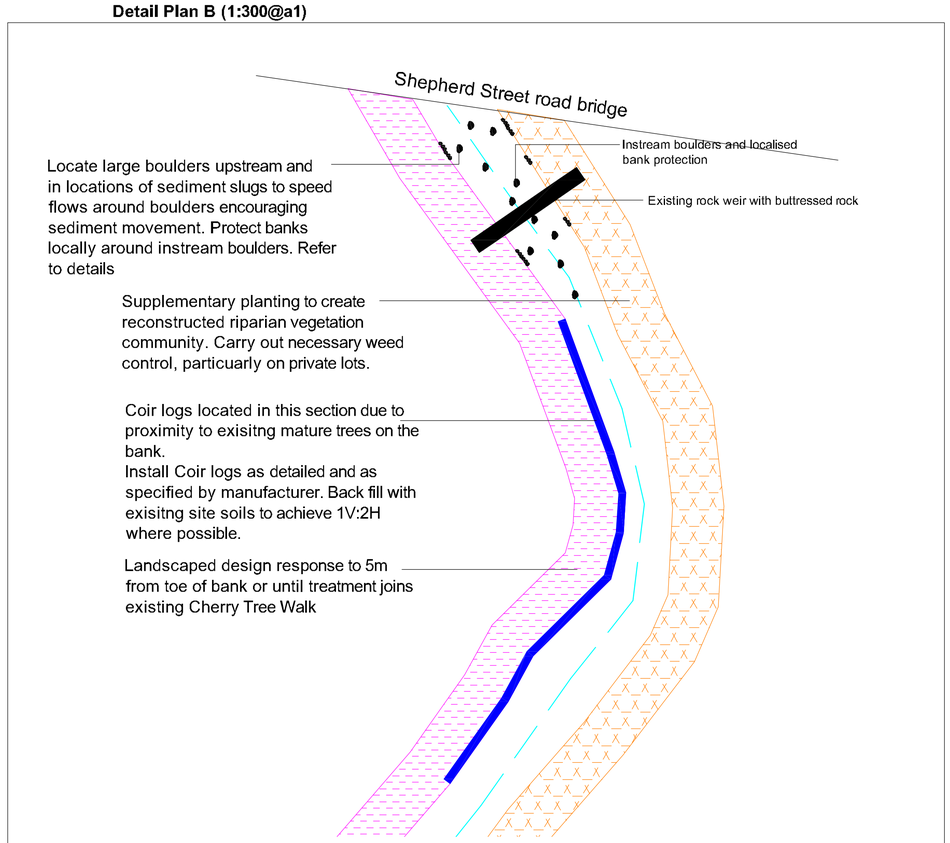
SCALE: **1:10,000 @ A1**

DRAWING: **Section 1 Site 3 and 4**

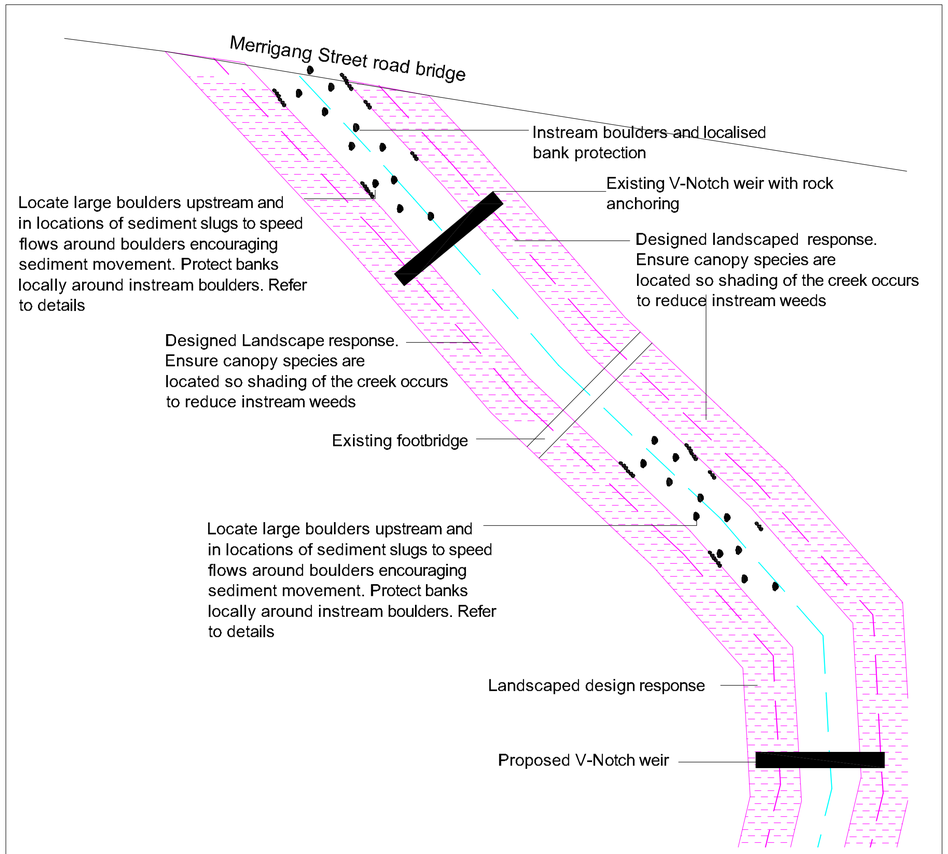
DRAWING CREATED: 28.08.11

AW JOB No.	CAD FILE No.	DWG No.	REV.
AWC3-11062	3-11062	3-11062-6	A

Detail Plan B (1:300@a1)



Detail Plan C (1:300@A1)



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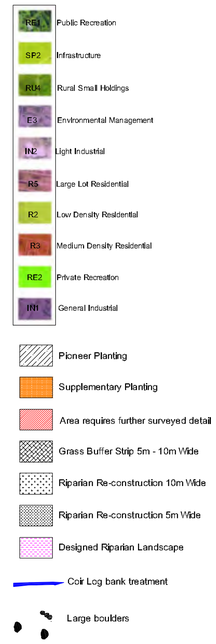

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PROJECT
Riparian Management Plan
Mittagong Creek

SCALE
1:10,000 @ A1

DRAWING
Section 1
Site 3 and 4 Detail

DRAWING CREATED: 28.08.11

AW JOB No.	CAD FILE No.	DWG No.	REV.
AWC3-11062	3-11062	3-11062-7	A

KEY:

- RE1 Public Recreation
- SP2 Infrastructure
- RU4 Rural Small Holdings
- E3 Environmental Management
- IN2 Light Industrial
- R5 Large Lot Residential
- R2 Low Density Residential
- R3 Medium Density Residential
- RE2 Private Recreation
- IN1 General Industrial

- Pioneer Planting
- Supplementary Planting
- Area requires further surveyed detail
- Grass Buffer Strip 5m - 10m Wide
- Riparian Re-construction 10m Wide
- Riparian Re-construction 5m Wide
- Designed Riparian Landscape

(This Page)

Rose Street – Victoria Street

TREATMENT

- Establish boundaries of 5m min. Designed Landscape treatment to true right adjacent to Cherry Tree Walk;
- Establish full riparian reconstruction to the true left of the creek
- Remove woody weeds from creek line;
- Undertake supplementary planting ;
- Continue and undertake weed control;
- Place boulders in creek, as required where sediment slugs have formed;
- Create in-stream rock ribs in existing sediment benches to facilitate sediment movement

(This Page)

Victoria Street – Mittagong Road

TREATMENT

- Undertake investigation/ survey to allow detailed design of the creek line from **Victoria Street** as shown. This area exhibits large exposed, vertical banks, erosion in close proximity to the Cheery Tree Walk and is adjacent to significant specimen trees;
- Establish boundaries of 5m min. Designed Landscape treatment to both embankments;
- Remove woody weeds from creek line;
- Undertake supplementary planting ;
- Continue and undertake weed control;
- Place boulders in creek, as required where sediment slugs have formed.

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PROJECT
Riparian Management Plan
Mittagong Creek

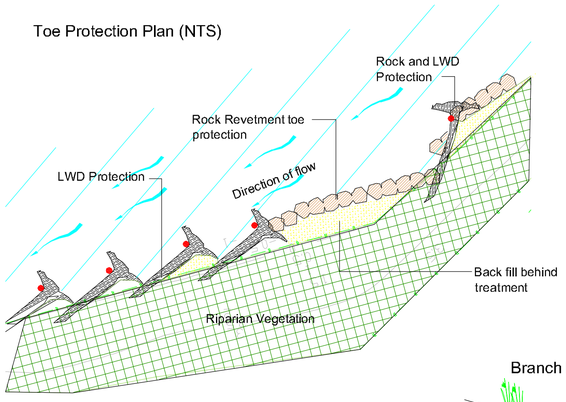
SCALE
1:10,000 @ A1

DRAWING
Section 1
Site 5

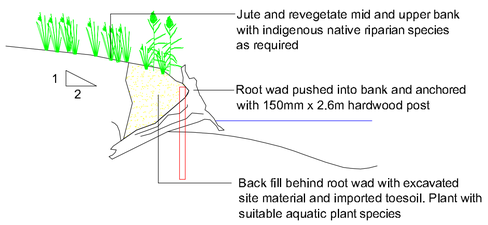
DRAWING CREATED: 28.08.11

AW JOB No.	CAD FILE No.	DWG No.	REV.
AWC3-11062	3-11062	3-11062-8	A

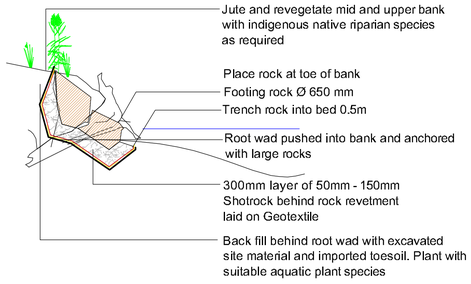
Toe Protection Plan (NTS)



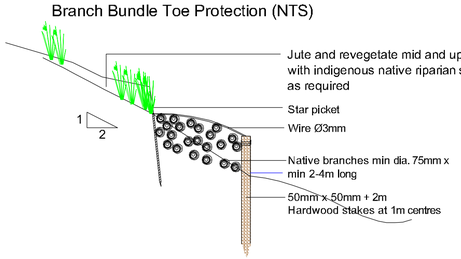
LWD (Root Wad) Toe Protection (NTS)



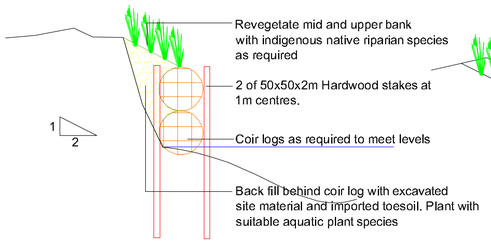
Rock and LWD (Root Wad) Toe Protection (NTS)



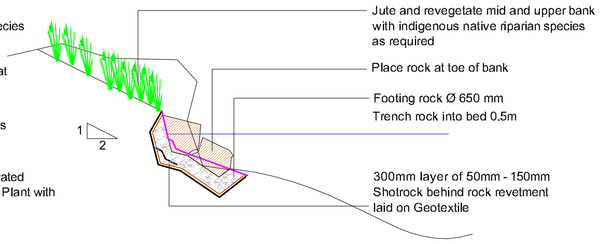
Branch Bundle Toe Protection (NTS)



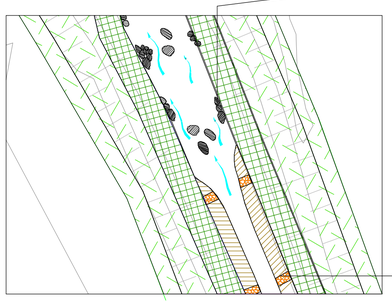
Coir Log Bank Protection (NTS)



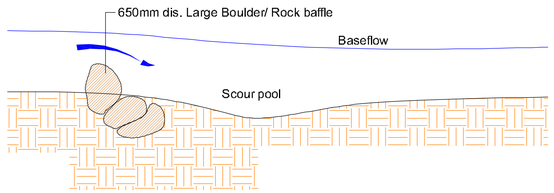
Rock Revetment Toe Protection (NTS)



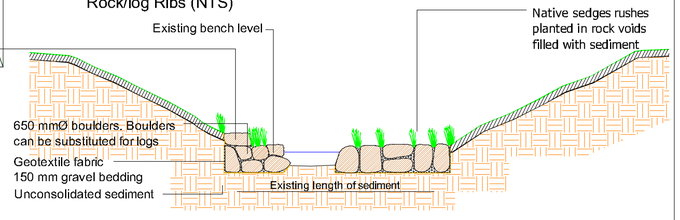
Instream Boulderes/ Rock Baffles Rock/Log Ribs Plan (NTS)



Instream Boulderes/ Rock Baffles (NTS)



Rock/log Ribs (NTS)



A rock rib is formed excavating approximatively one meter by one metre trench across the bench, lining with filter cloth, then backfilling with rocks. The ribs are to be revegetated.

Pioneer Species			
Trees (1/5m2)	**Shrubs** (1/2m2)	**Ground Covers** (4/m2)	**Marginals/ Aquatics** (6/m2)
Eucaplyptus ovata,	*Bursaria spinosa*	*Lomandra longifolia*	*Juncus usitatus*
E ucaplyptus radiata	*Leptospermum obovatum*		*Carex appressa*
E ucaplyptus elata			
Angophora floribunda			
Acaica melanoxylon			
Acacia mearnsii			

Riparian Reconstruction			
Trees (1/5m2)	**Shrubs** (1/2m2)	**Ground Covers** (6/m2)	**Marginals/ Aquatics** (6/m2)
Acaica melanoxylon	*Oxylobium ilicifolium*	*Austrostipa rudis*	*Juncus usitatus*
Acacia mearnsii	*Melalueca thymifolia*	*Microlaena stipoides*	*Carex appressa*
Angophora floribunda	*Olearia microphylla*	*Austrodanthonia species*	*Eleocharis acuta*
Eucaplyptus ovata,	*Daviesia ulicifolia*	*Lomandra longifolia*	*Eleocharis sphacelata*
E ucaplyptus radiate	*Bursaria spinosa*	*Themeda australis*	
E ucaplyptus elata	*Leptospermum obovatum*	Themeda triandra	
Eucalyptus cypellocarpa,	*Goodenia ovata*	*Dianella longifolia*	
Eucalyptus piperita,	*Melalueca linarifolia*	*Poa labillardieri*	
Eucalyptus globoidea.			
Eucalyptus aggregate			
Eucalyptus macarthurii			
Eucalyptus pauciflora			
Eucalyptus stelluata			
Eucalyptus viminalis			
Eucalyptus mannifera			
Eucalyptus amplifolia			

Designed Landscape Treatment			
Trees (1/10m2)	**Shrubs** (1/5m2)	**Ground Covers** (8/m2)	**Marginals/ Aquatics** (6/m2)
Acaica melanoxylon	*Oxylobium ilicifolium*	*Austrostipa rudis*	*Juncus usitatus*
Acacia mearnsii	*Melalueca thymifolia*	*Microlaena stipoides*	*Carex appressa*
Angophora floribunda	*Olearia microphylla*	*Austrodanthonia species*	*Eleocharis acuta*
Eucaplyptus ovata,	*Goodenia ovata*	*Lomandra longifolia*	*Eleocharis sphacelata*
E ucaplyptus radiate	*Melalueca linarifolia*	*Themeda australis*	
E ucaplyptus elata		Themeda triandra	
Eucalyptus cypellocarpa,		*Dianella longifolia*	
Eucalyptus piperita,		*Poa labillardieri*	
Eucalyptus globoidea.			
Eucalyptus macarthurii			
Eucalyptus pauciflora			
Eucalyptus mannifera			

NOTES

Creek Restoration Strategies

- Where possible dredging of the creek should be avoided unless to undertake stream restoration works.
- Improve bank toe stability with suitable selected indigenous riparian vegetation.
- Consolidated bank toes at specified locations with ecologically designed post and branch bundles or Coir Log. These structures will prevent bank collapse and significantly improve the overall geomorphic habitat structure of the creek. These structures will also enhance sediment transport and encourage sediment redistribution along bank toes.
- Create scour pools in the creek by strategically placing ecologically designed rock ribs and boulders. This will also enhance sediment transport through the reach. The proposed structures in low to moderate flows will also help to:
  - oxygenate the water;
  - reduce water stagnation; and
  - increase stream velocities.
- Provide extensive shade to the creek with suitable selected indigenous riparian vegetation. This will help to reduce and regulate water temperature in the creek. This will also significantly increase dissolved oxygen levels in summer months, improving water quality.

Creek Line Restoration Plan

- Separate creek line restoration plans have been developed for each creek section. These plans have been developed in order to address identified threats and implement creek restoration goals and strategies. A plan of each creek section (drawing) providing a view and the location of prescribed stream restoration treatments is also provided.

Bank Treatment

- All embankments are to be regraded to a slope of 2H:1V, juted and planted. In general the banks are stable with most of the required rehabilitation required occurring at the toe of the bank or in-stream. Not all of the site banks require regrading. Previous works in the area have provided stable embankments that require weeding and planting only.
- **Large Wood Debris (LWD/ Root Wads)**

Treatment Objectives

- To prevent bed sedimentation.
- To provide reinforcement to bank toe, bed and prevent scouring.
- To prevent sediment deposition significantly improving flood flow conveyance.
- To provide habitat for riparian vegetation and fauna.

Location of Treatments

- Treatments are located on the outside of bends along the site and opposite the outlet of contributory channels in rural settings

Construction Notes

- The primary consideration of the LWD is to reduce scouring and to prevent erosion migrating up the channel, not to stop it entirely.
- LWD or bundles of logs are aligned parallel to the stream bank. The spacing of LWD, ensure adjacent logs overlap. Ensure root of each log is upstream of trunk/ stem.
- LWD are made by placing into a trench excavated into the existing unconsolidated bank material. LWD - 300mm-500mm dia. are to be trenched/ pressed into the bank using the excavator and are to finish at the same height of the bank and are not to extend into the stream any further than the existing, unconsolidated material so as not to reduce the existing cross sectional area.
- Logs or bundles of logs are to be native, hardwood species.

- **Rock Revetment**

Treatment Objectives

- To prevent bed sedimentation.
- To provide reinforcement to bank toe, bed and prevent scouring.
- To prevent sediment deposition significantly improving flood flow conveyance.
- To provide habitat for riparian vegetation and fauna.

Location of Treatments

- Treatments are located on the outside of bends along the site and opposite the outlet of contributory channels where space is constrained by neighbouring property/ infrastructure/ paths etc

Construction Notes

- The primary consideration of rocks is to reduce scouring and to prevent erosion migrating up the channel, not to stop it entirely.
- Rocks are aligned parallel to the stream bank.
- Rocks are to be placed into a trench excavated into the existing unconsolidated bank material. 650mm dia. min. are to be trenched/ pressed into the bank using the excavator and are to finish at the same height of the bank and are not to extend into the stream any further than the existing, unconsolidated material so as not to reduce the existing cross sectional area.
- Large, angular, hard, boulders should be used that are not prone to shearing or fracturing.
- Rocks should be angular with the flattest side of the rock laid onto the streambed to prevent rocks from rolling or gliding away.

- **Post and Branch Bundles/ Brush Boxes or Coir Log**

Treatment Objectives

- To prevent bed sedimentation.
- To provide reinforcement to bank toe, bed and prevent scouring.
- To prevent sediment deposition significantly improving flood flow conveyance.
- To provide habitat for riparian vegetation and fauna.

Location of Treatments

- Treatments are located on the outside of bends along the site and opposite the outlet of contributory channels in rural settings for post and branch bundles or for Coir logs where space is limited or there are access issues or where detailed bank restoration is required.

Construction Notes

- 2m x 50mm x 50mm ground treated timber posts are to be driven into the creek bed at 1m intervals for the length of the treatment indicated in the plans. Posts are to be no more than 500mm from the edge of the existing bank.
- Only native species should be used providing there are no seed pods or flowers on the branches. Branches are to be 2-4m in length with a maximum diameter of 75mm and placed with butt ends orientated downstream. Stagger ends so that tips are evenly distributed along the length of the treatment.
- Compress branches and tie off to posts using high tensile 3mm wire. Drive posts further into creek bed to tighten wires and compress.
- Back fill with excavated site soils and compact heavily to prevent excessive erosion
- Coir logs are to be installed as per manufacturer's specifications

Backfill behind coir logs and bundles with existing site material and plant with riparian species. Coir logs can have plants planted directly into them.

GEOTEXTILE NOTES

Mechanical/Hydraulic Properties	Test Method	Units	Typical Values
Mass	AS3706-1	g/sqm	Min 160
G rating	AUSTROADS	G	Min 1,900
Grab tensile strength	AS2001.2.3	N	Min 800
Pore size dry sieving	AS3706.7-90	Ø95 um	Max 210
Flow rate under 100mm head	AS3706.7-90	l/sqm/sec	Max 250

In-Stream Treatment

- **Boulders**

Treatment Objectives

- Boulders create hydraulic diversity. As flow accelerates around boulders, scour pools are created and downstream bars are formed. This process facilitates the transport of sediment through the creek section, preventing net sediment deposition.
- Boulders create cover and substrate for macro-invertebrates and other aquatic fauna.
- The turbulence induced by the boulders aerates the water and will improve water quality.
- Boulders create only minor increases in channel roughness during bankfull flow conditions (Rutherford et al. 2000). Hence, they are not likely to have any impact on flood flow conveyance.

Location of Treatment

- Boulders are placed as a series of several boulders randomly placed in clumps.
- Clumps of boulders have been placed specifically in the creek section, at approximately the desired location of riffles. Desired riffle locations were identified from the existing morphology of the creek and were also identified from an understanding of the creeks geomorphic character and behaviour.
- Clumps of boulders are located in creek sections were stream banks are stable.
- Boulders should be placed away from stream bank edges as they can cause localised bank scour.
- Boulders can be randomly placed at approximately one rock per 27m^2 in a configuration similar to the concept design drawing.
- Boulders should project slightly above the water surface at normal flow, creating habitat for fauna (birds, turtles, etc.).
- Boulders should have a minimum diameter of 600mm. Large boulders do not need to be trenched in to the creek bed. Wesche (1985) recommends a diameter between 600mm to 1500mm.
- The primary consideration when installing boulders should be to ensure they add as much hydraulic disturbance as possible to encourage scour and bar formation for improved stream habitat and geomorphic stability.
- Large angular boulders should be orientated to create the greatest hydraulic disturbance. Granite or basalt quarried rocks are the best rock source, because their sharp edges enhance turbulence. Hard rock should be used that is not prone to shearing or fracturing.
- Boulders should be angular with the flattest side of the rock laid onto the streambed to prevent rocks from rolling or gliding away.
- Boulders should be positioned to maximise disturbance by orientating their longest dimension at right angles to the flow, and by placing the largest rocks near the centre of the stream with the fastest flow.

- **Rock Ribs or Large Logs**

- Rock Ribs/ Large logs/ bundles of logs are aligned perpendicular to the stream bank. The spacing of rock ribs is to be ten (10) metres from adjacent ribs
- Rock ribs/ large logs/ bundles of logs are made by placing either, into a trench excavated into the existing unconsolidated bank material. Large boulders, 300mm-500mm dia. or logs 300mm-500mm dia. are to be trenched/ pressed into the bank using the excavator and are to finish at the same height of the bank and are not to extend into the stream any further than the existing, unconsolidated material so as not to reduce the existing cross sectional area.
- Logs or bundles of logs are to be native, hardwood species. Ribs are to be a minimum 1m wide up to a maximum width of 2m.
- Large, angular, hard, boulders should be used that are not prone to shearing or fracturing.
- Rocks should be angular with the flattest side of the rock laid onto the streambed to prevent rocks from rolling or gliding away.

PLANTING NOTES

Witness points

Give sufficient notice so that inspection may be made at the following stages:
-Sub-grades cultivated or prepared for placing topsoil.
-Topsoil spread before planting.
-Planting area set out
-Completion of planting establishment work

Sub Soil Cultivation

Cultivate existing sub soils to a depth of 300mm within the boundary of the planting areas. Ensure to best protect/ not damage the roots of existing trees.

Settlement period

Allow the cultivated areas to settle for one week prior to planting. Top up any settlement as required to meet design levels and bulk out any subsided areas.

PLANTING

Plant materials

Quantity: Submit one plant sample for each 100 of each species or variety, in the condition in which it is proposed to supply that plant to the site.

Pre-ordering

The contractor shall be responsible for ensuring that all plant material is available to sizes and species type nominated in the plant schedules. For specimens in large quantities this will require the preordering and growing on of species by a selected nursery for an extensive period of time prior to their installation. Proposed pre ordered specimens are to be sourced and approved in consultation with the project Landscape Architect. No substitution of species or sizes will be accepted unless given in writing by the Landscape Architect or Site Super Intendant.

Plants

All Macrophytes, grasses and ground covers to be CELLS. All shrubs and Trees to be HIKOS
General: Provide plants with the following characteristics:

- Large healthy root systems, with no evidence of root curl, restriction or damage.
- Vigorous, well established, free from disease and pests, of good form consistent with the species or variety.
- Hardened off, not soft or forced, and suitable for planting in the natural climatic conditions prevailing at the site.

Replacement: Replace damaged or failed plants with plants of the same type and size.

Plant containers

General: Supply plants in weed-free containers of the required size.

Labelling

Label at least one plant of each species or variety in a batch with a durable, readable tag.

Storage

Deliver plant material to the site on a day to day basis, and plant immediately after delivery.

Locations

If it appears necessary to vary plant locations and spacings to avoid service lines, or to cover the area uniformly, or for other reasons, give notice.

Planting conditions

Do not plant in unsuitable weather conditions such as extreme heat, cold, wind or rain. In other than sandy soils, suspend excavation when the soil is wet, or during frost periods.

Placing

Plants are to be planted in communities as indicated in the drawings. Like ground covers are to be planted in long, linear swathes with a minimum cross - section of 2m. Adjacent plantings of grasses and ground covers are to be blended with a 1m minimum overlap into adjacent plantings so as to blur / soften the edges. Trees and shrubs are to be alternately planted so as to maximise the diversity of the upper canopy as much as possible. Wherever possible, plant different species adjacent to each other.
Application rate (kg/ha): as recommended by manufacturer. Refer to Plan of management document.

Backfilling

Backfill with topsoil mixture. Lightly tamp and water to eliminate air pockets. Ensure that topsoil is not placed over the top of the root ball, so that the plant stem remains the same height above ground as it was in the container.

Mulch

Apply 'Organic Leaf Litter Mulch' to a depth of 50mm over all planting beds. Ensure that no mulch is contact with plant stems and is dished to create a water catching basin around each plant.

Tree Stakes and Ties

For all trees and shrubs install bamboo stakes, bags and erosion control square (Jute disc). Apply water crystals to all plants.

NOTE: Drawings not for construction and are indicative only. Any structural bank works to be under approval of Council Engineer or approved Representative.

Australian Wetlands Consulting Pty Ltd
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REV.	ISSUE / AMENDMENTS	DATE	DESIGNED	DRAWN	CHECKED
A	For Review	28.01.10	RB	CB	DM

CLIENT:
WINGECARRIBEE SHIRE COUNCIL

PROJECT
Riparian Management Plan
Mittagong Creek

SCALE
1:10,000 @ A1

DRAWING
Details and Notes

DRAWING CREATED: 28.08.11

AW JOB No.	CAD FILE No.	DWG No.	REV.
AWC3-11062	3-11062	3-11062-2	A