



SNOWY MONARO
REGIONAL COUNCIL

ATTACHMENTS TO REPORTS

(Under Separate Cover)

Ordinary Council Meeting

27 September 2017

**ATTACHMENTS TO REPORTS
FOR
ORDINARY COUNCIL MEETING
WEDNESDAY 27 SEPTEMBER 2017**

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Event Overview

Snowy Monaro Region

REVISED – 14 August 2017



Update

Please be advised that changes have been made to Wildside Adventure Race course to minimize risk factors for participants and reduce impact on the community. To that end the start in Banjo Patterson Park on Monday 2 October and legs 1, 2 & 3 have been cancelled.

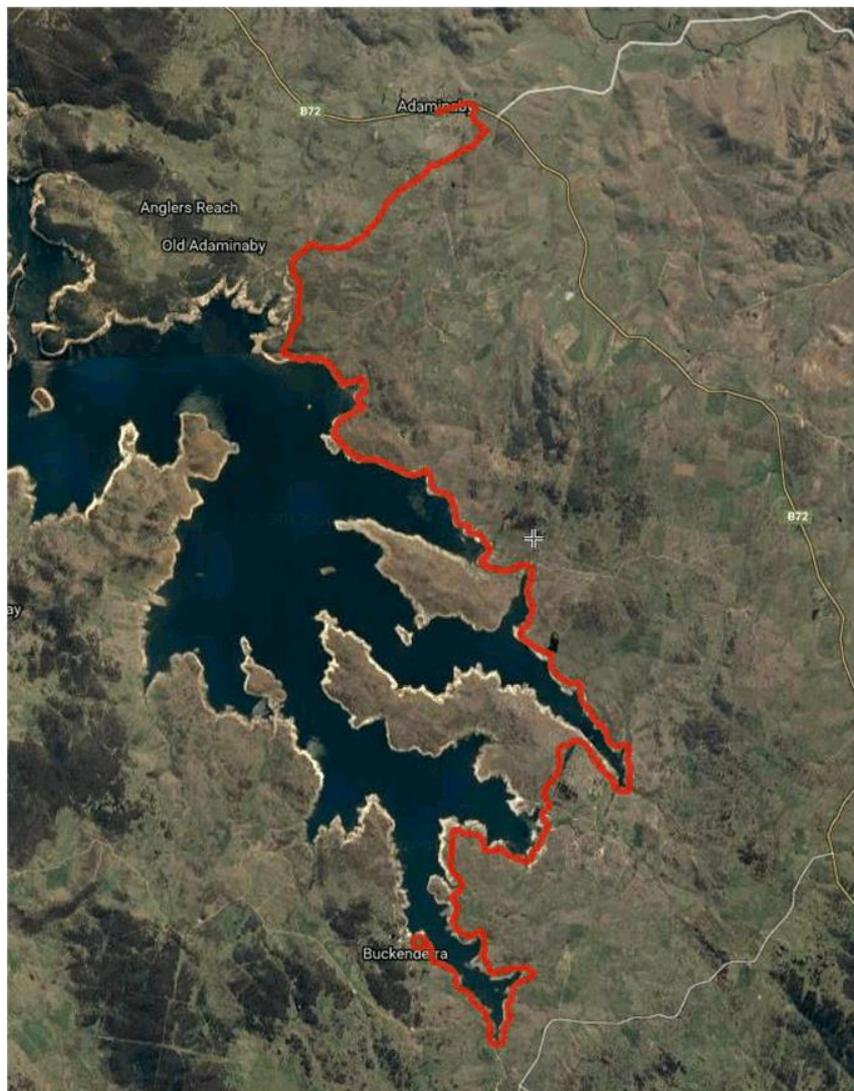
The event will now start in the Buckenderra Caravan Park.

A revised set of course maps for leg 1 & 2, an outline of the Adaminaby transition area and detail on a safe crossing under Snowy Mountains Highway follows. All other event detail is as per original documentation.

Snowy Monaro Region Specific Course

There are 2 legs which traverse Council managed land.

Leg 1 start time 0700 - 70km trek along the edge of Lake Eucumbene to Adaminaby.





Leg 1 Entry into Adaminaby

The safest route for teams to enter Adaminaby is through the small cemetery on Bushrangers Hill Rd down to Locker Creek. From here they climb the fence and use the creek underpass to travel below the Snowy Mountains Highway. On the other side the verge is 5m wide. Teams travel 600m on this verge and into Adaminaby. There is no contact with the Highway or impact on traffic

This route results in zero impact on the highway and occurring during daylight hours represents a significant reduction in risk. Caution signage would still be installed on the approaches either side of the underpass and within Adaminaby itself.

Leg 2 – Mountain Bike - teams ride out of Adaminaby, along Yaouk Rd until Grassy Creek Fire trail and then head into the ACT.



For leg 2 'caution race in progress' signage will be placed along Yaouk Rd

Adaminaby Transition

Transition Areas or TA's are where a team changes disciplines. These are sites where first aid is available and the event crew sets up to assist teams in moving through the course. They can vary in layout from very basic tents to halls.

TA's are often areas where media attention focuses, as they are the best locations to capture imagery and stories from the race. They also allow the local community to experience the event.

There is one TA in the Snowy Monaro Region – the public park adjacent to the Big trout in Adaminaby. This TA will operate between 10am until 6pm on Monday 2 October and will be a chance for the community to experience adventure racing and we will be using a local community organisation to help manage the area.



Safety & Risk Management

As previously detailed Fully Rad Adventures takes safety very seriously. To avoid emergency situations and keep the race as safe as possible, important steps are taken. In general, a team of first aiders and/or medically trained contractors will be the Medical Team for the event. This team is led by a Medical Director who has adventure race experience. Key course marshals and TA's will be equipped with communications devices in order to contact medical staff for advice and assistance. The medical team will be able to then contact the closest trained first-aid resource to provide further instructions. There will be a 4WD first aid rapid response team on the course.

Risk Minimisation Measures

Course Design

The first step in overall safety begins with well thought out and detailed course design. Many aspects must be considered when designing a course but safety is the highest priority. Important aspects such as the following must be considered:

- Relatively easy vehicle access to all parts of the course.
- Avoiding having participants navigate through potentially dangerous terrain.
- Ensure the length of individual legs of the course is reasonable for a team at that point in the race. This is an important consideration as the duration that participants are on any one leg increases, so too does the probability that a team may have difficulties.
- Ensure that the course will still be as safe as possible in bad weather conditions. Have alternate course options if safety becomes compromised in unforeseen circumstances.
- Safety signs placed in strategic locations on the course to alert the public to the presence of the participants.

Signage

Minimal signage is used in the race. However, if teams are travelling in high traffic areas warning signage is erected



Where needed businesses and communities are informed prior to the events passage via letterbox drop.

Event Rules

The rule structure that governs team's actions throughout the event is a fundamental input to ensuring overall safety.

Mandatory Safety Equipment

Teams must carry a significant quantity of mandatory safety equipment with them at all times. This equipment is crucial to ensuring participant safety throughout the event. It helps ensure that teams are prepared enough to avoid incidents in the first place as well as competently deal with them in the case that they do.

It should be understood that participants who take part in these events generally come from outdoor backgrounds and disciplines where they are immensely competent and have often achieved at the highest levels. These people, more so than any other event, have the skills and experience to avoid trouble or in the unlikely event something does happen, competently deal with situations in remote areas without outside assistance. The average age of participants is 35.

Safety Briefings

A key element of the pre-race activities is the safety briefing session. This is compulsory for every participant. If a person doesn't receive the safety brief, they do not race. In addition to the verbal safety briefs, the course notes and maps that participants are issued contain important safety information.

Team Tracking

All teams carry with them a GOS satellite tracker. The tracking of teams through the course is an important safety control. The location of each team is monitored in detail through each manned checkpoint and each leg. In this way if a team is overdue at a certain checkpoint, the race organisers can initiate the search and rescue plan. This element of the race also makes the race a spectator event with supporters and local communities able to track where teams are and when they may be passing through.

Emergency Communications

In the unlikely event of a serious emergency situation, teams carry a waterproofed communications device. This is to be used to alert event HQ of the situation. The reliability, suitability and coverage of various communications devices is assessed for each course and location. From this a communications plan is developed. Ensuring the highest possible degree of reliability is key to overall safety. While no communications device can guarantee 100% reliability, FRA ensures that all officials and participants have the best chance of successful communications.

Civil Emergency Services

FRA recognises that the civil emergency services are the final safety net of all other layers of safety prove inadequate. While FRA does not wish to burden the civil system unnecessarily, neither will we hesitate to contact them if the situation is sufficiently serious. In the pre event preparations FRA will either visit with or write to, all the relevant civil emergency organisations (e.g. hospitals, ambulance, police etc).

Risk Management

The event management team will apply best risk management practice as set out in AS/NZS ISO 31000:2009 Risk management - Principles and guidelines.

A detailed risk assessment has been undertaken of all aspects of the Wildside Adventure Race and already submitted.

Approval Sought

Approval is sought from Snowy Monaro Regional Command for the passage of the Wildside Adventure Race through the areas detailed above. Entrants will observe road rules at all times and Fully Rad Adventures will be implementing a comprehensive safety management plan as outlined in the event overview document.

If you require any clarification or information please contact Richard Old, Race Director, on 0402519521 or richard@fullyradadventures.com.au

Fully Rad Adventures
PO Box 352 Forster 2428





Safety Management Plan

Overview

- Course
- Race Rules
- Mandatory Equipment
- Competency & Equipment Checks
- Safety Briefings
- Team Mates
- Other People on the Course
- Team Tracking
- Emergency Communications
- Search & Rescue
- External Volunteer Assistance
- Civil Emergency Services

Emergency Action Plan

- Aim
- General
- Emergency Response Procedures Flow Chart
- SAR Coordinator
- SAR Team
- SAR Team Leader
- SAR Team Member
- First Team Contact
- Communications
- Equipment
- Annex A Emergency Procedures/Incident Sheet
- Annex B SOAP Note
- Annex C Equipment Checklist
- Annex D Medical Guidelines
 - Wilderness Only Protocols
 - Traction in Line of Deformity
 - Dislocations
 - Performing a Focused Spine Assessment
 - Higher Trained Medical Staff
 - Evacuation Procedures
 - Administering Medications
- Annex E Fire Safety Plan
- Annex F Lost Person/ Team Procedures
- Annex G Guidelines to Actions On plan by SAR team members
- Annex H Media

Overview

It is acknowledged that October represents a heightened fire risk. It is also noted that the likelihood of cold temperatures is high during the race. Fully Rad Adventures takes the safety of participants, officials and the public extremely seriously. A holistic approach has been taken to all elements of safety. Our safety systems are comprehensive and multi layered working closely with land managers, government bodies and communities. These systems are under constant review with the ultimate goal of providing the safest experience possible for all involved.

Course

The first step in overall safety of participants begins with well-considered and detailed course. Many areas must be considered when designing a course but safety is the highest priority. Factors that affect safety include nature of course; method participants will be traversing, time of day, accessibility, surrounding environment and the effects of weather.

- Initially choosing a location that is likely to have weather conditions that would not increase participant risks to an unacceptable level. (eg areas with unacceptable extremes of heat, cold & or precipitation).
- Relatively easy vehicle access to large parts of the course.
- Avoid teams navigating through potentially terrain that exceeds the level of competency of the teams.
- Ensure the length of each leg is of duration suitable to the experience and competency of the teams.
- Ensure that the course will still be as safe as possible in bad weather conditions. Have alternate course options if safety becomes compromised in unforeseen circumstances.
- Safety signage placed in strategic locations on the course to alert the public to the presence of the competitors.

Race Rules

The rule structure that governs team's actions throughout the event is a fundamental input to ensuring overall safety. The event rules are strictly enforced. Some of the more important rules are listed below:

- Team members must remain within 100m of each other at all times.
- Teams must obey all civil laws, rules and regulations (e.g. road & traffic rules, waterways rules etc.)
- Teams must carry their mandatory safety equipment with them at all times

Mandatory Equipment

Teams must carry a significant quantity of mandatory safety equipment with them at all times. This equipment is crucial to ensuring participant safety throughout the event. It helps ensure that teams are prepared enough to avoid incidents in the first place as well as competently deal with them in the case that they do. The list is quite detailed and can be found on the event web site www.wildsideadventure.com.au.

Some of the key items are:

- Waterproof mobile phone or other communications device.
- Waterproof tracking device (satellite or GPRS).
- High quality clothing for protection in all weather conditions.
- An emergency shelter.
- Approved safety helmets for cycling, kayaking and roping activities.
- Personal Flotation Devices and water rescue equipment.
- A Global Positioning System (GPS).
- Maps, compasses and other navigational equipment.
- First aid kit per team.

To further enhance safety of participants, they must each wear specially made vests at all times. These are a brightly coloured and highly visible

Competency & Equipment Check

Each participant is checked to ensure they have the necessary skills to safely take part in the event. Their equipment is also checked to ensure it is in a safe working condition and of suitable quality. Failure of any part of these checks precipitates removal from the event.



It should also be understood that competitors who take part in these events generally come from outdoor backgrounds and disciplines where they are immensely competent and have often achieved at the highest levels. These people, more so than any other event, have the skills and experience to avoid trouble or in the unlikely event something does happen, competently deal with situations in remote areas without outside assistance. The average age of participants is 35.

Safety Briefings

A key element of the pre-race activities is the safety briefing session. This is compulsory for every participant. The safety brief has important elements such as:

- Potential hazards on the course.
- Weather conditions
- Fire
- Alternate routes
- Communications
- Emergency procedures

A session of first aid revision also takes place. This is conducted by a first aid professional and is designed to refresh some of the basic first aid procedures for some possible situations. It is hands and teams have the opportunity to practically revise some of these skills.

In addition to the verbal safety briefs, the course booklet and maps that competitors are issued contain important safety information. This information includes:

- Emergency contact numbers
- Locations of manned checkpoints
- Details of possible hazards on the course
- Safety procedures

Team Mates

A team comprises of two or four members who must stay together at all times throughout the event. This means that if any one person injures themselves or has a problem, there are immediately another people to lend assistance. It is also a race rule that Teams must render assistance to other teams should it be required. This safety net well and truly exceeds many other outdoor events where participants undertake activities individually and do not have access to immediate assistance.

Other People on the Course

If a participant requires assistance beyond that which is available from their team mates, there are various other human sources on the course. These include:

Other teams who are in the vicinity. Teams have whistles and torches to alert others to their need for assistance. Some checkpoints on the course are manned by event officials. At these checkpoints is normally located a comprehensive first aid kit as well as a communications device.

Mobile event officials in the area when a team needs assistance. Throughout the event, officials such as the Advance Course Team, Rear Course Team, Search & Rescue Team and logistics crews travel the course. These may be hailed down for assistance at any time. Other associated event personnel are also likely to be travelling the course. These may include media crews and spectators.

External parties may be an option for assistance in emergency situations. This could include local residents, motorists etc.



Team Tracking

The tracking of teams through the course is an important safety control. The location of each team is monitored in detail through each manned checkpoint and through each leg. In this way if a team is overdue at a certain checkpoint, the race organisers can initiate the search and rescue plan.

Teams carry a GPS tracker throughout the race whereby race officials can see the location of each team via a website. This website is monitored from RaceHQ and is visible on mobile devices. A team can be located at any time.

Emergency Communications

In the event of a serious emergency situation, teams carry (in addition to the GPS tracker) a waterproofed emergency mobile phone. This is to be used to alert RaceHQ of the situation as soon as possible. The reliability, suitability and coverage of various devices is assessed for each race. The race booklet has contact numbers for teams.

Ensuring the highest possible degree of communications reliability is essential to overall safety. While no communications device can guarantee 100% reliability, the organisers ensure that all officials and competitors have the best chance of successful communications.

Search & Rescue

Search & Rescue (SAR) is an important aspect of each adventure race organised by Fully Rad Adventures.

Search & Rescue preparations include:

- Identification of key events that will trigger SAR responses.
- Development and outfitting of the SAR personnel (vehicles, equipment, communications etc.)
- Familiarization and training of the SAR team before the start.
- Issue of detailed course maps
- Briefings on the course and testing of access to specific areas of the course.
- Briefings on call out procedures local infrastructure, closest hospitals, local emergency services etc.

The personnel that comprise the SAR teams are generally highly trained and experienced. They will mostly have first aid qualifications and in some cases they will be trained to a higher level of medical care (e.g. advanced first aid, ambulance officer or paramedic). They will generally be excellent navigators, have good driving skills and be able to get to any point in the course quickly and safely. It is likely that they will have qualifications and experience in remote area rescue. The coordination of all SAR teams is controlled by a dedicated SAR Coordinator based at race HQ.

External Volunteer Assistance

In some cases external organisations are involved the event to provide safety assistance. The most common case is in water activities where organisations such as the Volunteer Coastal Patrol or Surf Life Saving have a watercraft following teams while kayaking.

Emergency Services

The FRA recognizes that the emergency services organisations (police, fire, ambulance) are the final safety net if all other layers of safety fail. While FRA do not wish to burden the civil system unnecessarily, neither will they hesitate to contact them if the situation is serious. In the pre-event preparations FRA visit with and/or write to all the relevant civil emergency organisations (e.g. hospitals, ambulance, police etc.)



Emergency Action Plan

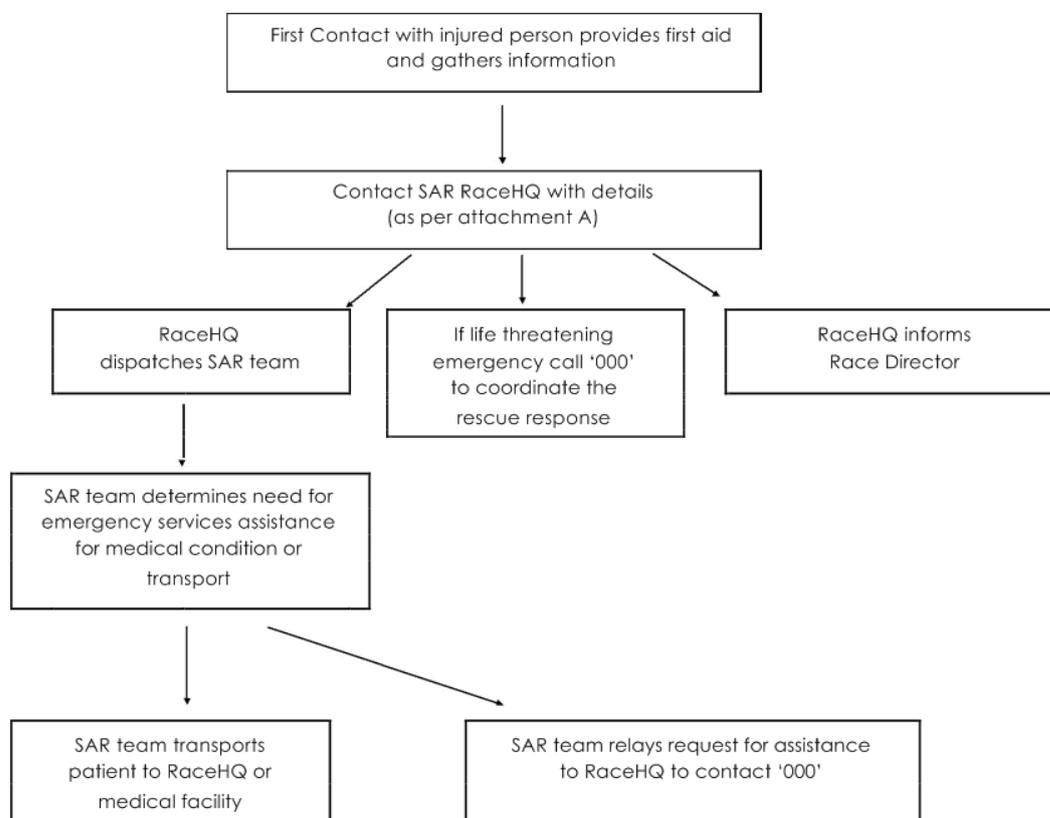
Aim

The aim of this plan is to provide a generic framework in which to plan and conduct first response, search and rescue, first aid activities at the Wildside Adventure Race.

General

FRA employs Search & Rescue (SAR) teams as an important aspect of competitor safety. This plan describes the various roles, responsibilities and procedures for a successful SAR.

Emergency Response Procedures Flow Chart



SAR Coordination

SAR is coordinated through RaceHQ. RaceHQ has a detailed knowledge of the course, access routes, and the location of teams during the race. They also have a good knowledge of the local emergency services and infrastructure.

Whether the RaceHQ received the initial contact or not, they should quickly be informed of the situation so that they may coordinate the appropriate response.

Their responsibilities are to ..

- Coordinate the overall SAR response.
- Allocate the tasks and compositions of SAR teams.
- Provide direction to the SAR team leaders.
- Provide an interface to the local emergency services.
- Provide information to the race director, officials, teams, support crews and the public if appropriate.
- Keep a record of the incident for future reference.
- Once a SAR response has been completed, debrief relevant people.
- Collate feedback at end of the event from SAR personnel.

SAR Team

A SAR team is a dynamic group of people who are tasked by RaceHQ to complete a specific task.

These tasks could include ..

- Respond to a team who is in an emergency situation.
- Rescue one or more participants.
- Transport of an injured participants.
- Find a lost team.
- Provide a safety escort (e.g. on the water).
- Retrieve teams from the course in a non-emergency capacity.

In most cases the minimum number of people in the team will be two. It should consist of a SAR team leader and one or more SAR team members. They will normally be tasked in a 4WD vehicle or boat with appropriate equipment to carry out their tasks.

SAR Team Leader

The SAR team leader will generally be an experienced race official working for Fully Rad Adventures. They will have a good knowledge of the course, access routes, and the location of teams during the race. They will also have a good knowledge of the local emergency services and infrastructure. They should have good skills in navigation and all terrain driving. In most cases the team leader will have qualifications in first aid. Their responsibilities will include ..

- Ensure the SAR team and all appropriate equipment is set up and functional prior to a deployment.
- Manage and direct SAR team members.
- Obtain copy from HQ of known medical conditions of competitors.
- Ensure SAR team has up to date comms list and regularly test communications devices.
- Conduct regular comms checks with HQ, including before and after a move.
- SAR response as directed by RaceHQ
- Navigate to the appropriate location and rendezvous (RV) with the team in distress.
- Provide immediate first aid to any injured person (as per Annex A).
- Assist with movement of injured person if it is safe to do so (as per Annex A).
- Keep HQ informed of the situation.
- Interface with civil emergency services if required.
- Perform or assist emergency services in conducting a technical rescue if required (within qualifications).
- Perform a search for a missing team/s (As per Annex B).
- Perform other race admin and logistics tasks as required.
- Document any SAR incidents.
- Provide written feedback points to SAR Coordinator at end of event.



SAR Team Member

A general member of the SAR team will be required to do a number of tasks as directed by the SAR Team Leader. These could include:

- Checking that the SAR vehicle is ready fuelled and working properly.
- Checking that the SAR team has all appropriate equipment and it is in a good working condition.
- Driving the SAR team vehicle or boat.
- Using the communications devices.
- Assist team leader with a rescue and/or search for missing team.
- Assist team leader with the carry of specialist equipment e.g. stretcher, roping equipment etc.
- Assist team leader with a search for a missing team.
- Assist team leader with provision of first aid (to the level of your training).
- Be prepared to take over responsibilities as team leader.
- Perform other race admin and logistics tasks as required.
- Provide written feedback points to SAR Coordinator at end of event

First Contact

The first contact for an emergency will be RaceHQ. In practice, however, there are a multitude of people who teams might make the first contact with. They could include the communications operator, HQ manager, a checkpoint official, or a volunteer marshal etc.

Each of the above race officials should be issued with a number of copies of the Emergency Procedures/ Incident Sheet. This sheet is included as attachment A. It steps the person through the critical information that needs to be gathered from the team in distress. Whoever receives the contact is required to write down the details of the contact as outlined in this form.

Communications

SAR teams however will normally have access to one or more of the following communications devices:

- Next G hand held mobile phone
- 5W hand held 40 channel UHF radio
- Car mounted 40 channel UHF radio
- Satellite phone
- SPOT or GPRS tracking device with emergency call button
- Laptop with internet connection

Equipment

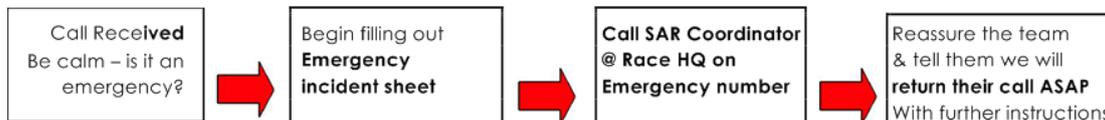
While the equipment that is required for a particular SAR may be quite diverse. A generic equipment checklist is located at Annex C.

Annexes

- A. Emergency Procedures/ Incident Sheet
- B. SOAP Note
- C. Generic Equipment Checklist
- D. Medical Guidelines
- E. Lost Person/ Team Procedures
- F. Guide lines to Actions On plan by SAR team members
- G. Media Guidelines in the event of an incident



Annex A Emergency Procedures/Incident Sheet



Obtain as much of the following information as possible:

Current location *(grid reference, CP number, road name etc)*

Time of call _____

Team name/number

Name of person/s injured

Nature of injury *(what happened, what is wrong)*

Time of injury _____

State of injured person now (stable, getting worse etc)

Can the injured person walk? _____

What actions/first aid has been taken at this point?

Confirm how to communicate back to the team (e.g., mobile number, CP number, other)

Volunteer Name _____ Date _____

Volunteer Signature _____

Annex B
SOAP Note

Soap Notes are a highly structured format for documenting the progress of a patient during treatment

SOAPNOTE

Subjective: age, sex, mechanism of injury (MOI), chief complaint(C/C): _____

Objective: vital signs, patient exam, AMPLE history:

Vital Signs

TIME					
LOC oriented x ?					
RR & effort					
HR & effort					
Skin C, T, M					

Patient Exam: Describe locations of pain, tenderness & injuries: _____

Allergies: _____

Medications: _____

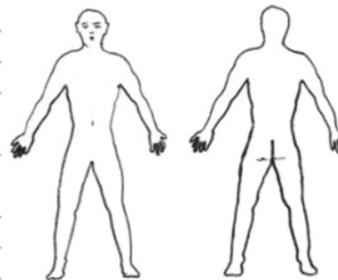
Past pertinent medical history: _____

Last in and out: _____

Events leading up to accident: _____

Assessment: problem list:

1. _____
2. _____
3. _____



Plan: plan for each problem on the problem list:

1. _____
2. _____
3. _____
4. MONITOR - How often do you plan to monitor the patient? _____



Annex C Generic Equipment Checklist

General

Comms devices	Map
Compass	GPS
Waterproof map case	Headlamps/Torch
Water	Whistles
Personal food, water, shelter	Personal clothing, shoes etc.
Pocket knife, string, duct tape	Binoculars
Spare orienteering marker & punch	Pens & pencils

Medical

First aid kit	Stretcher
Backpacks	Water
Electrolytes	Blankets/Sleeping Bags
Insulation mats	Tent
Hot water bottles & towels	Dry set of clothing

Vehicle

Flashing light	First Aid symbol
Extendable work lights	Hazard triangles
Event caution signs	Vehicle recovery equipment
Sufficient fuel	

Rescue

3x harnesses	50m static rope
Ascenders	Various slings
Locking carabiners	Descending devices

Boatin

PFDs	Rescue rope/tow rope
Night lights	Sufficient fuel
Blankets	Oars/paddle
Spot light	

First Aid Kit Contents

Blue First Aid Kits - Contents

Contents booklet	Emergency action note book
First aid booklet	Protective gloves X4
CPR face shield	Antiseptic wipes X4
Plastic biohazard bag	Biohazard sticker
Tweezers	Safety pins X3
EMT shears	Pencil
Splinter probe	Thermometer
Sterile gauze swabs X6	Cotton tips X6
Iodine swabs X6	Normal saline 30ml X2
Curved sterile irrigation syringe (10ml)	Combine trauma dressing X2
Green soap scrub sponge X2	Sterile wound closure strips X3
Tincture benzoin swab stick X3	Paw Paw ointment
Elastic gauze bandage (5cmX4m)	Elastic gauze bandage (7.5cmX4m)
Crepe bandage 10cm light	Crepe bandage 10cm heavy
Flexible active strips X20	Knuckle dressing X2
Fingertip dressing X2	Absorbent non-adherent dressing (7.2X5cm) X3
Absorbent non-adherent dressing (10X8cm) X2	Waterproof dressing (6X7cm) X4



Waterproof dressing (10X12cm) X2
Eye pads X2
Adhesive tape
Burn aid gel sachet
Moist burn pad (10X10cm)
Foam adhesive support (10cm)
Thermal blanket

Waterproof island dressing X2
Triangle bandage X2
Athletic tape
Open weave adhesive dressing (10X25cm) X2
Hydro gel dressing
Aloe Vera

CP First Aid Kits

First Aid Quick Ref guide
Bandage Crepe 7.5cm
Triangular Bandage
Emergency Blanket
Tape Strapping
Scissors
Paracetamol
Eye Drops
Spray Bandage
Gastrolyte
Phenergan

Strips Adhesive x 10
Gloves Disposable
Pad Combine 10x20
Pad Eye
Facial Shield
Diarrhea Relief
Aspirin
Ventolin/Asmol
Buscopan
Ibuprofen

Annex D

Fully Rad Adventures Medical Guidelines

General

Fully Rad Adventures employs staff in both professional and volunteer roles with senior first aid qualifications or above (including wilderness first aid and first responder certification). Any person under the employ of FRA should respond to any medical incident, involving anyone within FRA's duty of care, acting to their first aid level of training.

In such case that a medical incident should occur in a wilderness setting (defined as greater than 1 hour from definitive medical care) any person trained to the wilderness first aid or first responder and with current certification may respond in accordance with the following "wilderness only" protocols.

Wilderness Only Protocols

Traction in Line for Deformity

In the instance that a musculoskeletal injury leaves a bone or joint outside the normal anatomical position or position of function, in a wilderness setting, a trained first aider may attempt to re-align the injury using gentle steady traction in line. The traction in line should cease if there is a significant increase in pain or mechanical resistance or obstruction. If the normal anatomical position cannot be achieved the injury should be splinted in the position found. All musculoskeletal injuries that involve suspected fracture or deformity should be evacuated to medical care.

Dislocations

A trained first aider may consider attempting to reduce a dislocation if the patient is in a wilderness setting or if circulation/sensation/motion (CSM) has been compromised by the dislocation. Reduction of a dislocated joint should follow the principle of using slow, gentle, steady traction in line which is slowed or discontinued if there is a significant increase in pain or it meets with resistance or obstruction.

Performing a Focused Spine Assessment

Any patient who has a significant mechanism of injury (MOI) which suggests a potential spinal should be treated following the principles of managing a spinal injury and an entire patient assessment should be conducted. If the patient is in a wilderness setting and the patient assessment reveals no signs or symptoms to indicate a spinal injury is present a focused spine assessment may be performed by a trained/qualified wilderness first aider adhering to the following guidelines;

1. Patient must be reliable: A+O x 3 or 4, sober, no distractions
2. Patient must have normal circulation (unless otherwise explainable by another injury or illness), Sensation (no tingling, numbness or unusual hot or cold sensations) and Motion (unless otherwise explainable by another injury or illness) in all four extremities.
3. Patient must deny spinal pain and tenderness.

If the patient meets all of these criteria a decision to discontinue spinal immobilisation can be made. If the patient experiences any delayed signs or symptoms of spinal injury spinal immobilization should be reapplied immediately.

Higher Trained Medical Staff

For the Wildside Adventure Race professional medical staff such nurses or doctors have been notified and placed on call by FRA in either a volunteer or professional capacity. In extreme circumstances where civil emergency services are inaccessible within 1 hour, professional medical staff may be requested to act by senior FRA officials (such as the Race Director/Operations Manager/Search & Rescue Coordinator). In this case professional medical staff may act to their level of training within the limits of coverage of their own professional indemnity insurance.



Evacuation Procedures

For the Wildside Adventure Race first aid treatment will be initiated and continued, for injuries/illnesses as needed, until need for definitive medical care is determined by the person providing first aid in consultation with senior FRA officials (such as the Race Director/Operations Manager/Search & Rescue Coordinator).

If the patient improves and evacuation is not indicated relevant patients will be advised to seek medical advice at their earliest convenience.

If it is determined that a patient requires evacuation to definitive medical care and they are able to sit in a regular vehicle with their seat belt firmly fastened they may be transported either to the nearest medical facility, the nearest access point for civil emergency services, or back to race HQ for monitoring in either the Search and rescue vehicle (the first option if the patient requires monitoring or is in a difficult access situation (e.g. 4wd track), or (in exceptional circumstances) a FRA employed volunteers' personal vehicle.

If it is determined that the patient requires urgent medical assistance and transport to a hospital, civil emergency services should be contacted through '000' to coordinate the rescue response and utilize the quickest means available (e.g. Westpac Rescue Helicopter, road ambulance) to access the patient and evacuate them. In the case that civil emergency services takes control of an evacuation effort all FRA staff and volunteers will provide any assistance required.

Administering Medications

Antihistamines

Phenergen

Generic Name: Promethazine Hydrochloride

Dose: 10-20 mg every 6 hours

Description (colour, shape etc): small blue, round tablets.

Indications: Useful in the treatment of moderate to severe allergic reactions & anaphylaxis

May alleviate motion sickness if taken > 2hrs prior to travel.

Contraindications: Hypersensitivity, acute asthma attack

Side Effects: Drowsiness, dry mouth, blurry vision

Polaramine

Generic Name: Promethazine Hydrochloride

Dose: 10-20 mg every 6 hours

Description (colour, shape etc): small blue, round tablets

Indications: Useful in the treatment of moderate to severe allergic reactions and anaphylaxis

May alleviate motion sickness if taken > 2hrs prior to travel

Contraindications: Hypersensitivity, acute asthma attack

Side Effects: Drowsiness, dry mouth, blurry vision

Ventolin

Generic Name: Salbutamol

Dose: As per the patients asthma management plan or if unavailable dosage should be 1 puff 4 breaths continued until symptoms subside. Ventolin should be administered in conjunction with patients own corticosteroids if recommended in their management plan)

Description (colour, shape etc): Blue/grey inhaler preferably used in conjunction with a spacer.

Indications: Signs and symptoms of asthma &/or respiratory distress.

Contraindications: Allergy to salbutamol sulfate

Side Effects: headache, nausea, shaky or tense feeling, irregular or fast heartbeat, 'warm' feeling, mouth or throat irritation

Adrenaline or EpiPen

Generic Name: Epinephrine (bronchodilator and vasoconstrictor) (Prescription)

Dose: 0.3 ml (1:1000 epinephrine) inject subcutaneous (SQ) or intramuscular (IM) (as per responder's level of training). Repeat as necessary. Follow injection with recommended dose of antihistamines as soon as the patient is able to swallow them.



Description (colour, shape etc): epipen or SQ or IM injection using syringe/needle and adrenaline vial
Indications: Anaphylaxis adrenaline may also be used in the case of a severe asthma attack which is unrelieved by reliever medication and becoming a life threatening situation.
Contraindications: No true contraindication with anaphylaxis. Hypertension, cardiac disease, glaucoma & shock
Side Effects: Increased heart rate, nervousness, dizziness, lightheadedness, nausea & headaches

Analgesics (Painkillers)

Panadol

Generic Name: paracetamol

Dose: 325-1000 mg every 4-6 hours orally. No more than 4000mg in any 24 hour period.

Description (colour, shape etc): Small white tablets or caplets

Indications: For relief of pain such as headache (not for use for headache following head trauma), cold and flu discomfort, minor muscle and joint discomfort and menstrual cramps. May also be used for the reduction of fever. Does not control inflammation.

Contraindications: allergy to paracetamol, hypersensitivity, liver disease or hepatitis

Side Effects: hypersensitivity is rare.

Nurofen

Generic Name: Ibuprofen, Non-steroidal anti-inflammatory drug (NSAID)

Dose: 400-800 mg every 4-8 hours orally as required

Description (colour, shape etc): Gel cap/caplet

Indications: For symptomatic relief of pain associated with headache, colds, flu, frostbite, toothache, arthritis, epididymitis, burns and menstrual cramps. May be used to reduce fever. For the pain of inflammation and the reduction of inflammation associated with muscle, joint and overuse injuries.

Contraindications: Allergy to aspirin, ibuprofen or other NSAID's, active gastrointestinal or peptic ulcers, gastrointestinal bleeding disorder

Side Effects: Nausea, epigastric pain, dizziness, rash

Anticoagulant

Asprin

Dose: ½ -1 tablet (~160mg) every 24 hours for cardiac chest pain

Description (colour, shape etc): all white dissolvable tablet

Indications: Chest pain for a patient with no history of heart conditions. May also be used for patient with chest pain and a history of angina where pain is unrelieved by 3 doses of nitroglycerin prescribed for the patient. Can be used to "cauterize" exposed tooth pulp in the case of a dental incident

Contraindications: Allergic sensitivity to Asprin or NSAIDS. Gastrointestinal bleeding, bleeding disorders, impaired liver function. Do not administer to children under 12 years old.

Side Effects: gastro intestinal distress, allergic reaction

The following medications may be used in the case that a competitor has been removed from the race and is unable to continue:

Antiemetic

Stemetil

Generic Name: Prochlorperazine (prescription)

Dose: 10 mg capsule every 4 hours by mouth

Description (colour, shape etc): capsule

Indications: Nausea and vomiting

Contraindications: Hypersensitivity, glaucoma, bone marrow suppression, liver or cardiac impairment, blood pressure problems, CNS depression.

Side Effects: Muscle spasms of the neck

Anti-diarrhea

Gastrostop

Generic Name: Loperamide hydrochloride

Dose: 4mg by mouth initially followed by 2 mg after each loose stool

Description (colour, shape etc): Tablet

Indications: For use in the control of diarrhea. Thought to limit peristalsis

Contraindications: Hypersensitivity, diarrhea secondary to certain bacteria (eg *E.Coli*)

Side Effects: Dry mouth, dizziness, abdominal discomfort



Annex E

Fire Safety Plan

It is acknowledged that October represents a heightened fire risk.

Actions

Recognising the standard practises and procedures within the event Safety Management Plan there are 3 levels to this Fire Safety Plan. Level 1 details action taken in the light of adverse weather and high fire danger risk. Level 2 expands on level 1 actions reacting to a catastrophic fire risk category announcement. Level 3 is what actions are taken in the event of a fire.

Pre-Race

All teams will be briefed on fire safety and documentation will be included in the course booklet and race information kits. This information will include what to do in the event of a fire as detailed in the RFS NSW bushfire safety for bushwalkers flyer. Briefing will be conducted by a representative of either RFS, NPWS or SF.

Level 1

Adverse weather forecast – High Fire Danger Risk

- Teams briefed at each TA as to expected weather conditions for next leg of the race. This briefing to be verbal and documented for team to take. It will remind them of alternate routes in the event that evacuation is required and actions to take should they encounter fire.
- All team trackers monitored every 10 minutes at RaceHQ to confirm location of each team.
- Advance course leg team 4WD to monitor team trackers to confirm location of each team and relay back to RaceHQ conditions of course.
- Rear event team 4WD to monitor team trackers to confirm location of each team and relay back to RaceHQ conditions of course and teams.
- RaceHQ to monitor <http://www.rfs.nsw.gov.au/fire-information/fires-near-me>

Level 2

Very High to Severe fire risk category announced

In addition to all Level 1 actions

- Implement alternate route options for affect race leg. Communication to go from RaceHQ to all TA's, advance & rear 4WD and SAR Team.
- Teams stopped at TA and provide with alternate route details.
- Affected land managers advised of change to race leg.
- Where needed signage implemented along revised route to advise the general public.
- Teams already on leg – Advance or Rear 4WD Team to use team trackers to locate and extract or direct team to nearest alternate route.

Level 3

Catastrophic fire risk category announced or Fire

In addition to all level 2 actions

- In the event that fire is location specific - Leg cancelled. Teams transported via coach to next safest TA and race continues
- Teams already on leg – Advance or Rear 4WD Team to use team trackers to locate and extract or direct to nearest alternate route - unless team has already contacted RaceHQ.
- Or
- Fire widespread – affecting multiple legs - race cancelled. Teams transported via coach to Race HQ.



Annex F

Lost Person/Team Guidelines

In the event of a team or individual being identified as "lost" FRA will implement a search. The search is coordinated by the SAR Team. Each search will be different and affected by many factors.

A search situation generally runs as follows:

- A team or individual is deemed as lost
- The level of seriousness of the situation needs is assessed
- The search is coordinated

A team or individual may be deemed as "lost" through the following ways.

- A team is very over due to a check point (times are taken by the CP officials)
- A team contacts HQ with to identify that the entire team or a member of their team is "lost"
- Their tracking device is not working

When considering the seriousness of the situation RaceHQ must carefully consider various factors.

- Time of day – how long until dark/light
- Current and predicted weather conditions – is there a big storm on its way, is hypothermia or dehydration a consideration
- Terrain that the teams is in (are there natural hazards, does it take teams a long time to move through the area etc.)
- Communication reliability in the area – if there is good comms and a team hasn't called in distress, they may be ok
- Equipment with the team – have they enough equipment to be comfortable overnight
- Skills within the team if known – are they are team with a lot of outdoor experience, first aid experience, etc.

When coordinating a Search Plan, considerations need to be taken into account prior to launching.

- How long the team has been missing – have any other teams seen the teams in question
- The regular occurrence of teams "giving up" in the night & choosing to sleep until morning
- How many resources can be dedicated without causing safety problems in the rest of the event?
- The personal safety of the people who are conducting the search
- The skill level of the people who are conducting the search

The Search and Rescue will have 3 stages;

Stage 1 – The Initial Search

Stage 2 – The Intermediate Search

Stage 3 – Emergency Authority Assistance

Stage 1 – The Initial Search

- FRA Staff (Advance or rear Course Team) to drive along routes likely to have been used by the team
- In areas only accessible via foot, FRA Staff will drive around the perimeter of the inaccessible area first.
- Position FRA Staff at likely points that a team must pass through in order to complete the leg – i.e. a check point or catching feature (gully, ridge top etc.)
 - Send suitable skilled FRA Staff with a tracker and GPS to walk or mountain bike all likely routes taken by the team

Stage 2 – The Intermediate Search

The intermediate search involves increasing the number of resources dedicated to the search and searching in areas either side of the teams expected path.

- Increase the amount of resources dedicated to the search without endangering the rest of the event.
- Identify areas that it is likely that a team may have found navigationally difficult (unmarked trails, similar ridgelines) and walk or drive areas that the team may have accidentally detoured to.
- Talk to other teams about the routes they chose and areas that they became "lost" in



- Local commercial operators may be contracted to assist at this point (e.g. Initial Aerial Search provided by a Helicopter Charter Service, Initial Open Water search provided by a Boat Charter Operator).

Stage 3 – Emergency Authorities Contacted

If a team has been missing for a long duration and it is considered that they are believed to be in imminent loss of life or serious injury, stage 3 will be implemented.

- Local emergency authorities will be contacted to coordinate a search. FRA will assist the authorities in any way they can to ensure the search is conducted in an efficient manner
- The search will be conducted over a Mathematically Derived Area
- It is possible the event will need to be halted if the search reaches this stage.
- Any available teams, support crews and staff with suitable skills will be requested to assist with the search.
- Priority is to be on volunteer searchers safety.

Annex G

Guidelines to Actions On plan by SAR team members

If a SAR team encounters a participant that obviously needs assistance, it is recommended that SAR members intervene in the following manner.

- Alert the participant that they are concerned about their current condition and that they may be putting themselves at danger if they ignore their symptoms.
 - Alert the other members of the team that their team member has symptoms that need to be addressed
 - Suggest ways in which the team can assist the team member with the symptoms to be able to recover
 - Perform hands on first aid ONLY as a last resort. Discretion may be used here.
- If the participant will put themselves and their team at danger of a permanent disability or worse by continuing, SAR Teams are required to council the team not to continue.

Annex H Media

It is conceivable that FRA staff may be called upon to interact with the media. Ideally all media inquiries are directed to Race Director, but if this is not possible here are a few ideas to help deal with the situation.

If the media are present and FRA staff need to make a statement they should:

- Direct the media first to contact the Race Director and give them the mobile number.
- If a statement is unavoidable follow the steps below and document what is said where possible.

A Stand-by Statement for Media Interview

At this time we have only preliminary information, but I can confirm that we have received a report of an *(type of accident)*_____ and that _____*(person(s))* have been injured.

We cannot release the name of the injured person until his (her) relatives have been notified. Evacuation/patient care procedures are underway and we will update you when we have further information.

We are _____ *(generally describe steps taken for the evacuation)*.

Generally it may be appropriate to include a statement that communicates Fully Rad Adventure's commitment and concern for the wellbeing of its participants and staff.

Crisis Communication "Do's" and "Don'ts"

DO

- Tell the truth
- Release only confirmed facts
- Be concise
- Show concern and compassion
- Remain calm
- Provide updates
- Be warm and human

DON'T

- Speculate
- Talk "Off the Record"
- Overstate or understate
- Be thrown by hostile questions
- Reveal proprietary information
- Place blame
- Admit or deny responsibility

The Spokesperson's Checklist

To help you maintain control, study the following checklist before you give a presentation.

- Keep control
- Remain calm
- Listen carefully to questions
- Maintain credibility
- Eliminate distracting body language
- Project a strong positive image
- Diffuse hostile or irrelevant questions
- Maintain clarity when providing technical information
- Only answer questions asked of you, unless it's advantageous to provide other information
- Call back press contacts quickly; they do not go away if ignored
- Have someone monitor stories as they come out to make sure they are accurate
- Tell the truth
- Anticipate traps
- Use short succinct sentences
- Avoid arguments



Wildside Expedition Adventure Race Risk Management Plan

Created by: Fully Rad Adventures PTY Ltd

Event details:

Wildside Expedition Adventure Race
Canberra ACT Australia & surrounds
Sept 30 - 7 October 2017
5 day, 400km Adventure Race for teams of 2 & 4

Organisation details:

Fully Rad Adventures Pty Ltd - Richard Old
Contact phone: 0402519521
Email: info@fullyradadventures.com.au
ABN: 58 601 667 216

Definitions

Risk	The chance of something happening that will have an impact on objectives.
Consequences	The outcome of an event and has an effect on objectives. A single event can generate a range of consequences which can have both positive and negative effects on objectives. Initial consequences can also escalate through knock-on effects.
Likelihood	Likelihood is the chance that something might happen. Likelihood can be defined, determined, or measured objectively or subjectively and can be expressed either qualitatively or quantitatively (using mathematics).
Controls	A control is any measure or action that modifies risk. Controls include any policy, procedure, practice, process, technology, technique, method, or device that modifies or manages risk. Risk treatments become controls, or modify existing controls, once they have been implemented.
Timetable	When the control measure(s) will be implemented
Responsibility	Individual(s) responsible for the implementation and monitoring of the control(s)



Consequence rating

Level	Descriptor	Detail	Injuries
1	Insignificant	Low impact Low profile Event can continue as planned with no changes	none
2	Minor	Little impact Low profile Event can continue as planned with no changes	First aid
3	Moderate	Moderate impact Moderate profile Event can continue Leg adjusted and/or event operations modified	Medical Assistance
4	Major	Substantial impact 3 rd party action, high profile Event can continue Leg cancelled, entrants redirected	Extensive Treatment
5	Catastrophic	Significant Impact 3 rd party action, high profile and impact Event to stop	Death



Likelihood Measures

Level	Descriptor	Detail
A	Almost certain	Is expected to occur in most circumstances
B	Likely	The event will probably occur at least once
C	Possible	The event might occur at some time
D	Unlikely	The event is not expected to occur
E	Rare	The event may occur only in exceptional circumstances

Risk Rating

Likelihood	Consequence				
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
A Almost Certain	High	High	Extreme	Extreme	Extreme
B Likely	Medium	High	High	Extreme	Extreme
C Possible	Low	Medium	High	Extreme	Extreme
D Unlikely	Low	Low	Medium	High	Extreme
E Rare	Low	Low	Low	High	High

Timetable Acronyms

Acronym	
EG	Event General
RLS	Race Leg Specific
PE	Pre-event
PSE	Post Event



Responsibility Acronyms

Acronym	Position	Name
EM	Event Managers	Richard Old
FA	First Aid	TBA
WSC	Water Safety Coordinator	TBA
P	Participant	Various
S	Supplier	Various
LGA	Venue & Land Manager	Various
NPWS	Venue & Land Manager	National Parks & Wildlife
ACT	Venue & Land Manager	Events ACT
ENV	Venue & Land Manager	Environment ACT
SF	Venue & Land Manager	Forests NSW
SH	Venue & Land Manager	Snowy Hydro
RMS	Venue & Land Manager	Roads & Maritime Service

Notes

- This event involves multiple land owners. In each instance these managers have full control over the use of their land. Their respective site plans, Emergency Action Plans (EAPs) and safety procedures and protocols remain in place for this event.
- This Plan is superseded from any direction by the respective land owner in respect to the use and activities within the area of their control.
- In regards to First Aid this plan is superseded by any direction from the medical services provider (TBA)
- In regards to water safety this plan is superseded by any direction from the water safety provider (TBA)
- This Plan is superseded from any direction by NSW Police and/or emergency service personnel
- For this event there is a list of mandatory equipment that each participant and team must carry. This is checked prior to and during the race.
- Prior to the start of this event there is a series of competencies checks that every participant and team must undergo. These checks ensure individuals can navigate, apply first aid and have appropriate equipment and clothing for inclement weather. They also ensure each team has a qualified first aid member and a stocked first aid kit.
- Fully Rad Adventures has an adventure race safety strategy and fire safety strategy that are implemented for this event.



Race Risk Assessment

Risk	Consequence	Consequence Rating	Likelihood	Risk Rating	Controls	Timetable	Responsibility
Traffic Management	Accident	Moderate	Unlikely	L	Ensure a thorough TMP is in place for the event. Ensure any required traffic controllers possess a current Traffic Controller Certificate Ensure all signage is clear and legible. Ensure all Traffic Controllers follow instructions Competitors briefed to follow all normal road rules and where needed guided by markers/signage to prevent accident with vehicles	PE PE PE & DE PE & DE DE	EM EM EM EM EM
Vehicle flow impeded by placement of event overlay (e.g. bollards, light towers, marquees, fencing, banners, obstacles)	Disruption & delay to local traffic operations Traffic delays for venue patrons Dissatisfaction from key agencies Non- Compliance with approved traffic management plans Vehicles unable to turn/ park in accordance with event parking/ flow plans	Moderate	Unlikely	L	Placement of all additional overlay requires approval from respective land manager Traffic flow plans developed for event as required Traffic Management Plans submitted to relevant authorities as required Temporary traffic control equipment positioned as required Clear thoroughfares maintained at all times Service providers/ staff briefed onsite	PE & DE PE PE PE PE & DE PE & DE	EM & Land Manager EM & LGA EM & LGA EM & LGA EM & LGA EM
Motor vehicle accident	Serious Injury of death Legal action	Catastrophic	Unlikely	E	Traffic flow plans developed for event as required Traffic Management Plans submitted to relevant authorities as required	PE & DE PE	EM & LGA EM



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	instigated (financial loss) Negative public relations Loss of professional credibility Cancellation of event (financial loss)				Temporary traffic control equipment positioned as required Clear thoroughfares maintained at all times Service providers/ staff briefed onsite Event organiser/venue hirer to provide comprehensive Risk Assessment for event	PE & DE PE & DE PE & DE PE	EM EM & Land Manager EM EM
Vehicle parking impeded by placement of event overlay (e.g. bollards, light towers, marquees, fencing, banners, obstacles)	Lack of sufficient parking to cater for event numbers Negative public relations Loss of professional credibility Parking in areas that are off limits	Minor	Unlikely	L	Traffic flow plans developed for event as required Traffic Management Plans submitted to relevant authorities as required Event Organisers to submit site plan to Land Manager prior to event Service providers/ staff briefed onsite Event organiser to work closely with Land Manager to secure sufficient parking for event numbers Contingency plan in place for additional parking at each transition	PE PE PE PE PE PE	EM & LGA EM EM EM EM & Land Manager EM & Land Manager
Vehicle/pedestrian collision with event overlay (e.g. bollards, light towers, marquees, fencing, banners)	Serious Injury to event attendee Damage to vehicle Legal action instigated (financial loss) Negative public relations Loss of professional credibility	Moderate	Unlikely	M	Placement of all additional overlay plan provided to Land Manager for approval Traffic flow plans developed for event. Traffic Management Plan submitted to relevant authorities as required Industry standard temporary traffic control equipment positioned as required Clear thoroughfares maintained at all times Service providers/ staff briefed Vehicle parking/ thoroughfares sufficiently illuminated as required	PE PE PE PE & DE PE & DE PE	EM & Land Manager EM EM EM & Land Manager EM EM



Pedestrian knocked down	Serious Injury of death Legal action instigated (financial loss) Negative public relations Loss of professional credibility	Catastrophic	Unlikely	E	Traffic flow plans developed for event as required Traffic Management Plans submitted to relevant authorities as required Temporary traffic control equipment positioned as required Clear thoroughfares maintained at all times Service providers/ staff briefed onsite	PE & DE PE PE & DE DE PE	EM & Land Manager EM EM EM EM
Traffic Marshal knocked down	Serious Injury of death Legal action instigated (financial loss) Negative public relations Loss of professional credibility	Catastrophic	Unlikely	E	Traffic flow plans developed for event as required Traffic Management Plans submitted to relevant authorities as required Temporary traffic control equipment positioned as required Clear thoroughfares maintained at all times Service providers/staff briefed onsite and have necessary PPE	PE & DE PE PE PE & DE PE & DE	EM & Land Manager EM EM EM EM
Traffic congestion adjacent to Transition Area (TA)	Negative public relations Loss of professional credibility Event delayed (financial loss)	Moderate	Unlikely	M	Ensure adequate signage is in place outside each TA. Local Communities informed of event and likely impact	PE & DE PE & DE	EM EM & LGA
Event Safety Signage removed	Accident between entrants and General Public Disruption to General Public	Moderate	Unlikely	M	Ensure signage is affixed securely and is clear Implement regular course checking teams with back up signage to replace and/or repair missing signage Sweep each race leg post the last team and remove all event signage	PE, DE & AE	EM & various event staff



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Weather Conditions - cold	Participants suffer from Hypothermia	Major	Unlikely	H	First Aid mobile on course and at each TA for duration event. All event vehicles to have first aid	DE	EM & FA
					Briefing given to participants before event start detailing likely temperatures	DE	EM
					Participants advised of weather conditions prior to event	PE	EM
					Participants warned of any weather changes at each TA	PE & DE	EM & FA
					Each Team to have qualified Senior First Aider & approved first aid	PE & DE	EM & FA
					Random checks on first aid kits and thermals during race	DE	Various event staff
					Conduct First Aid test of all teams prior to race start as part of competencies procedure	PE	EM & FA
Inclement Weather - rain & wind	Cancellation of event or change to leg	Major	Possible	E	Event Organisers to monitor weather conditions in the lead up to the event	PE	EM & Land Manager
					Decisions of any cancellations made the day before the event or during in consultation with the land manager	PE	EM & Land Manager
					Wet weather contingency plan in place	PE	EM
Dehydration	Participants suffer from dehydration	Minor	Unlikely	L	Water available at each TA	DE	EM
					2 litres of water listed as mandatory equipment at the start of each leg for each participant	DE	EM
					First Aid located at each TA and mobile on course	DE	EM & FA
Spectators invade course	Serious injury caused to spectators, participants, staff and volunteers	Minor	Unlikely	L	Event Marshals to monitor any persons entering key course areas and TA's without approval	DE	EM & Land Manager
					All competitors identifiable by race bib.	DE	EM
					Volunteers identifiable by event shirt and/or high visibility vest	PE & DE	EM
High level of traffic on waterway	Serious injury caused to public participants, staff	Minor	Unlikely	L	Event Marshals to monitor course activity.	DE	EM & Land Manager



	and volunteers				All competitors identifiable by race bib. Advised to follow normal waterway rules	DE	EM
Limited facilities (amenities, catering, shelter)	Negative public relations Loss of professional credibility	Moderate	Unlikely	M	Hire of temporary facilities as per industry standards where needed. Advise support crews of limited facilities	PE	EM
Electrocution - death or injury as a result of faulty equipment	Serious injury or death Legal action instigated (financial loss) Negative public relations Loss of professional credibility Cancellation of event	Catastrophic	Rare	H	Only appropriately licensed and qualified electricians permitted to carry out electrical works on event sites. All exposed cables to be covered with cable trays or elevated with lead stands or other suitable material to prevent exposure All electrical equipment is checked, secured and tagged by a qualified electrician Electrical set up in compliance with statutory regulations Power loading is checked to be appropriate, not overloaded Use of generators where power supply needs to be supplemented	PE & DE PE & DE PE & DE PE & DE PE	EM, Land Manager & Licensed Electrician
Severe weather conditions lightning, heavy rain, extreme temperatures, high wind Events e.g. torrential rain, flooding, or hail	Serious injury or death Event cancellation (financial loss) Damage to property	Catastrophic	Unlikely	E	Participants advised to that extreme weather protection is a mandatory equipment item per person at all times Weather reports monitored to anticipate climate/weather change Event cancellation and leg changes in severe weather	PE PE & DE PE & DE	EM EM EM & Land Manager
Water/drowning	Drowning	Catastrophic	Rare	H	Active supervision throughout event Personal Flotation Devices and throw bags mandatory equipment for all water legs Water Safety in place at high risk areas Mandatory portage in high risk areas	DE PE & DE DE DE	EM EM EM EM



Pollution in waterway making activities dangerous	Health risk to staff & participants	Moderate	Rare	L	Monitor water quality Liaise with LGA's Liaise with RMS	PE & DE	EM LGA's RMS
Missing Persons	Distress caused to family and friends of a missing person	Minor	Rare	L	Transition Area notation of arrival and departure times for all teams as well as general wellbeing check	PE & DE	EM
					Designated contact person to manage the occurrence of missing person	PE & DE	EM
					Competitors accounted for on course by GPS tracking system	DE	EM
Team goes off course & becomes lost	Distress caused to family and friends of a missing person Placement of participant in dangerous situation	Minor	Unlikely	L	Tracking system for all teams operational	PE & DE	EM
					Teams required to carry GPS and mobile phone on Telstra network should emergency communication be required	PE	EM
					All teams supplied clear and the most recent maps.	PE	EM
Disorderly Behaviour	Intimidation and/or injury to persons	Minor	Unlikely	L	Event staff and marshals to observe spectators and to monitor unruly behaviour	DE	EM
					Event Organisers to assess and respond to situation: they may issue a warning, seek extra staff assistance, or contact the Police if required	DE	EM
Lost & Found Property	Valuable or items of sentimental lost while at event	Minor	Possible	M	Lost property to be taken to Event Operations Centre and recorded	DE	Event Staff
Minor Injury (cramps, blisters, loss of breath, cuts, abrasions)	Injuries to event participants	Minor	Possible	M	Incidents reported to Event Manager and relevant forms to be completed	DE	EM
					First Aid on course and at each TA	DE	FA & EM
Claim made against Race Director, Company, event team, participants or Local Government for incidents which occur on day of race	Legal action instigated (financial loss) Negative public relations Loss of professional credibility	Major	Unlikely	H	Ensure all procedures and strategies in place and monitored	PE & DE	EM LGA's Land Managers Participants
					Maintain Incident report system. Document everything		
					All participants sign waiver All Land Managers sign agreement regarding passage of event.		



Major Injury (heart attack, broken limbs)	Serious injury or death	Major	Unlikely	H	Incidents reported to Event Manager and relevant incident report forms to be completed Ambulance to be contacted	DE	EM & Land Manager FA & Water Safety
Public safety (crowd swell & control)	Injury to event participants	Major	Unlikely	H	Activities to cease until crowd congestion is cleared or participants guided to other activities	DE	EM
	Event Site Congestion				Additional resources to be allocated if crowd build up is significant	DE	EM
Unsafe practices by activity providers, suppliers & contractors	Public, staff and volunteer safety at risk	Major	Unlikely	H	Activities monitored throughout event to evaluate safety issues.	PE & DE	EM
					Operators to provide Event Organisers with a Safe Work Method Statement	PE	Suppliers
					Operators to provide Event Organisers with a copy of their Certificate of Currency for Public Liability Insurance	PE	Suppliers & EM
					Relevant WHS Certification, held by each of worker	PE	Suppliers & EM
					Pre-event communication with equipment and activity providers to establish safety parameters, and activity area set up to achieve safety requirements	PE	Suppliers & EM
Activity and equipment providers, and contractors briefed in regard to event operations, OH&S information, emergency procedures and essential contact details	PE	Suppliers & EM					
Marquee collapse & equipment malfunction	Serious Injury or death	Catastrophic	Unlikely	E	Marquees must be signed off as safe by contractor	PE	Suppliers & EM
	Legal action instigated (financial loss)				Emergency evacuation procedures implemented if required	PE	EM & Land Manager
	Negative public relations				Contractors to provide safe work method statement, PLI & any WHS certificates.	PE	Suppliers, EM & Land Manager
	Loss of professional credibility				Set up to be in compliance with statutory regulations.	PE	Suppliers, EM & Land Manager
	Cancellation of event						



Sponsor boards & signage/banners not secured or placed in prominent position	Injury to event attendees Lack of sufficient sponsor exposure	Moderate	Unlikely	M	Signage attached securely & regularly checked	PE & DE	EM
					Sites selected that do not cause barriers to pedestrian flow or emergency access	PE & DE	EM
					Sponsors to receive appropriate levels of coverage in safe and visible locations	PE & DE	EM
					Signage size / style appropriate for location	PE & DE	EM
Food poisoning	Event attendee, volunteer or staff member becomes sick from food or beverage provided by caterer	Major	Unlikely	H	Food contractors/suppliers selected that fulfil statutory regulations and comply with terms and conditions of venue catering contract.	PE	Caterers
					Caters to supply Event Manager with Public Liability Insurance	PE	Caterers & EM
Fire	Serious injury or death Property damage Damage to the natural environment	Catastrophic	Rare	H	Contractors/operators to comply with food preparation guidelines.	PE & DE	Caterers & EM
					Access to appropriate fire fighting equipment available	PE & DE	Caterers, Land Manager & EM
					Individual Leg emergency/evacuation plans in place	PE & DE	EM & Land Manager
					Close liaison with Land Managers and monitoring of weather	PE & DE	EM & Land Manager
Event staff suffer from dehydration or hypothermia	Onset of dehydration and/or hypothermia	Moderate	Rare	L	Rain jackets provided to staff if necessary	PE & DE	EM
					Staff briefed to alert other members if they are or others are suffering from dehydration or hypothermia	DE	Event Staff
					First Aid at each TA and mobile on site	DE	EM & FA
					Each TA to have a First Aid kit and clear emergency contact sheet	DE	EM & FA
Event staff or volunteer no show	Lack of sufficient staffing for event	Major	Unlikely	H	Arrange additional volunteer staff to cover short fall in event	PE & DE	EM
					Reschedule roster to cover missing staff	PE & DE	EM
High winds	Serious injury or death to event attendees	Catastrophic	Unlikely	E	Weather reports monitored and event canceled or Leg changed if considered too dangerous	PE & DE	EM



	Property damage				Ensure that TA marquees and obstacles are properly secured Secure or remove/put-away any loose items that could be blown away Monitor location of participants and redirect (when possible) away from high risk areas	DE DE	EM EM
Inadequate lighting of transition area	Serious injury caused to event attendees Potential collisions Disorientation	Major	Rare	H	Access or install sufficient lighting at each TA. Each participant must have functional head torch on person at all times	PE PE & DE	EM EM
In an emergency participant panic & cannot find way out of area.	Serious injury caused to event attendees Panic Disorientation	Major	Rare	H	All teams must carry a functional GPS device and mobile phone on Telstra network at all times. Teams also have mandatory gear with them at all times to manage emergency situations – tent, thermals, water, first aid kit, food, sleeping bag. All event staff and suppliers to be familiar with the Emergency Action Plan	PE & DE PE & DE PE & DE	EM & SIRC Participants All event staff & suppliers
Stress or violence caused by public redirected from usual routes	Serious injury caused to event attendees Panic & Disorientation	Major	Rare	H	Emergency Action Plan to be operated All event staff and suppliers to be familiar with the Emergency Action Plan	PE PE	EM & Land Manager Suppliers, Event Staff, EM & Land Managers
Needle stick injuries	Serious injury to racer or crew	Moderate	Rare	L	First Aid at each TA and mobile on site First Aid kits mandatory for each team	PE & PSE	EM
Incident during abseil	Serious injury to racer or crew	Major	Possible	E	Use qualified abseil instructors from K7Adventure Provide assistance to all racers Cease operations in inclement weather	DE	Supplier EM
Event operations communication failure	Inability to contact TA'S, Mobile First Aid, event staff and regulatory organisations	Moderate	Unlikely	M	Backup systems on hand Vehicles accessible to cover entire course quickly	PE & DE	EM
Team tracking failure	Inability to locate a team	Moderate	Unlikely	M	Have timing estimates for each leg and exit and entry times for all TA's	DE	EM & FA



					Each Leg to have a mobile marshal contactable		
Fatality on course	Competitor or staff member dies	Catastrophic	Unlikely	E	Emergency services called Assessment of situation by event manager Race close down – teams called back in First Aid at each TA and mobile on site First Aid kits mandatory for each team Vehicles accessible to cover entire course quickly Each Leg to have a mobile marshal contactable Emergency Action Plan to be operated All event staff and suppliers to be familiar with the Emergency Action Plan	PE, DE & AE	EM FA Emergency Services
Terrorism	Significant restrictions to event operations Death or serious injury of event staff or participants Destruction of event equipment	Catastrophic	Unlikely	E	Constant monitoring of event course Monitor movement throughout course	PE & DE	EM Event staff Land Managers
Bomb Threat	Threat to operations Restrictions to event operations	Minor	Unlikely	L	Constant monitoring of event course Monitor movement throughout course	PE & DE	Event staff Land Managers





Sportscover Australia Pty Ltd

A.C.N. 006 637 903
A.B.N. 43 006 637 903
AFS Licence No. 230914

CERTIFICATE OF CURRENCY

CERTIFICATE NO. 40852

This certificate confirms that the under mentioned policy is effective in accordance with the details shown.

Name of Insured: FULLY RAD ADVENTURES

Cover: Public Liability: \$20,000,000 any one occurrence
Products Liability: \$20,000,000 any one occurrence and in the aggregate
Professional Indemnity: \$1,000,000 any one claim and in the aggregate
Management Liability: \$1,000,000 any one claim and in the aggregate
(For The Business of Event Organiser and Promoter of Adventure Races)

Sport/Business: Event Organiser and Promoter of Adventure Races

Excess: As per policy schedule.

Period of Insurance: 30/11/2016 to 30/11/2017

Underwriter: Certain Underwriters at Lloyd`s

Policy Number: PMEL99/0102837

Counterparties: Snowy Monaro Regional Council and Snowy Hydro Ltd shall be indemnified for acts of negligence by the Insured only arising out of the playing of the sport nominated in the schedule.

For full terms, conditions and exclusions please refer to Your Policy Wording version Association_Liability_Policy_Wording_0307.14.



25/05/2017

DATE

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UNDERWRITING AGENCY OF THE YEAR INAUGURAL WINNER

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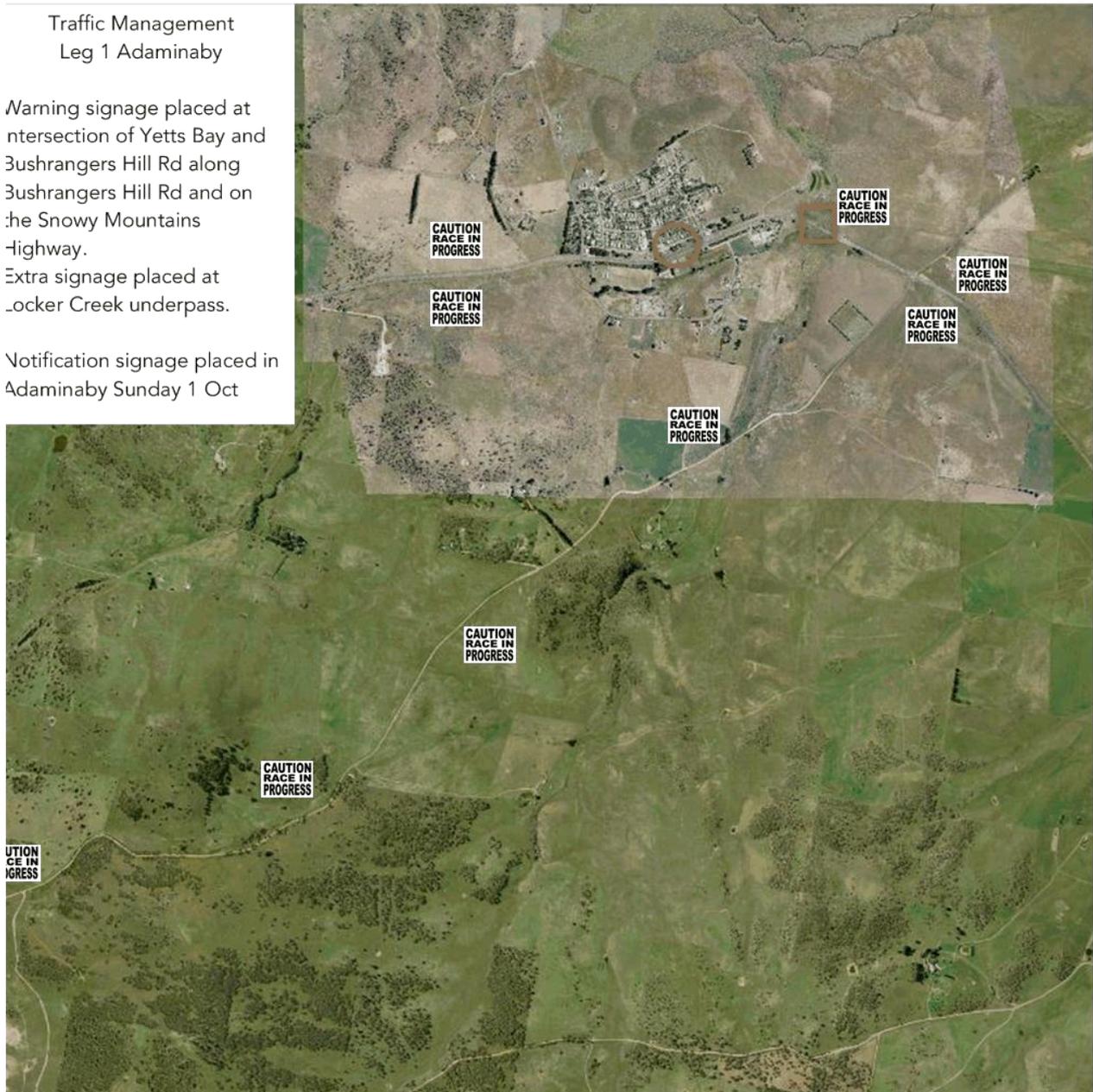


Traffic Management
Leg 1 Adaminaby

Warning signage placed at
intersection of Yetts Bay and
Bushrangers Hill Rd along
Bushrangers Hill Rd and on
the Snowy Mountains
Highway.

Extra signage placed at
Locker Creek underpass.

Notification signage placed in
Adaminaby Sunday 1 Oct





Administrator's Report to the Community

Stronger Together Better Together





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Message from the Administrator

On 12 May 2016 the New South Wales Government, by proclamation, merged the former Bombala, Snowy River Shire and Cooma-Monaro Shire Councils to form the Snowy Monaro Regional Council. At that time it was my privilege to be appointed as Administrator of the new Council until elections were held on 9 September 2017. My job has been to work with the General Manager, Mr Joe Vescio to bring the three councils into one, so that the newly elected Council will have a strong and stable platform moving forward.

Towns right across our local government area are already beginning to see the benefits of a larger, unified regional Council.

The township of Bombala has benefited from record infrastructure spending through Council's commitment to providing Bombala residents with improved drinking water and funding for a new Sewage Treatment Plant.

In Jindabyne, Council has commenced work to enhance the Jindabyne CBD in Snowy River Avenue which will help establish a true town centre.

There has been significant upgrades to the Cooma Saleyards, helping overturn the regional trend where many saleyards are in decline and ours is now thriving.

The staff of Snowy Monaro Regional Council are to be thanked and congratulated for their great work across all offices and depots for using their shared knowledge to the benefit of all residents.

These staff have helped me address the challenge of bringing three councils together, because they know that the Snowy Monaro Regional Council now has a greater capacity to deliver better outcomes and opportunities for our residents.

As a new Council, you are set to deliver 100 major projects through the Stronger Communities Fund. This represents one of the newly-elected Council's most critical undertakings. Delivering these vital community projects in less than two years will be a challenge. Towns and villages throughout the region have projects to be rolled out that will enhance their social, economic and tourism potentials.

All in all, it's an exciting time for Snowy Monaro with the region about to be engulfed by major infrastructure projects such as the new Snowy Hydro expansion, including all the major Snowy Monaro Regional Council projects. My hope is the new Council will pick up the challenge and continue to move the region forward by embracing all of these changes for the benefit of our residents.

A handwritten signature in black ink, appearing to read "DLynch".

Dean Lynch
Administrator





About this Report

The following Administrator's report is designed to inform our community of the key achievements and milestones Snowy Monaro Regional Council has delivered since May, 2016. This report covers the entire Administration period and will demonstrate the measures Council has undertaken to meet its key objectives and goals.

This report will highlight Council's progress and outline the next steps in the implementation process under the guidance of the elected council body.

Communicating to our residents the way the Stronger Communities Fund had been allocated is an important aspect of this report, as is providing information on the key achievements of Council.

This report supports a seamless transition to the newly elected Council and demonstrates open and accountable governance. This report outlines Council's achievements in its seven key strategic directions, provides information on Council's financial position and looks to the future.



Vision and Values of the council and community

Snowy Monaro Regional Council is committed to ensuring it delivers positive outcomes for its community and continues to provide a high-level of service that meets the needs of residents.

Council continually strives to uphold its vision of being a 'trusted community partner'. Through providing a transparent, honest and hard working organisation, Council has fostered important links with the community to establish itself as a trusted partner.

To meet our vision, Council staff uphold five key values:

Solutionary

Together

Accountable

Innovative

Caring

Council understands the aspirations and goals the community has for the Snowy Monaro region. Through close working relationships with community organisations, Chambers of Commerce, Progress Associations and key stakeholders, Council is helping the community achieve these aspirations.



Snowy Monaro Region

The Snowy Monaro region has proud Aboriginal heritage, and Council acknowledges the Ngarigo, Walgalu, Southern Ngunnawal and Bidhawal people as the original custodians of our vast and beautiful region.

The region covers 15,158 square kilometres, surrounded by rolling plains and mountain ranges, with 28% of our region consisting of national parks or reserves. The remaining area is largely privately owned rural land.

The region sits at the top of both the Snowy and Murrumbidgee River Catchments. Along with their major tributaries, they offer significant environmental values, as well as a source of fresh water for urban, recreational, irrigation and energy uses.

Our Snowy Monaro region is proud and diverse. Its eclectic mix of people contributes to the growing and vibrant community with 20,218* people who love and call the region home. With roots in agriculture, timber, snowsport and the Snowy Mountains Hydro-Electric Scheme, our region boasts an indelible diversity.

*ABS 2016 Census



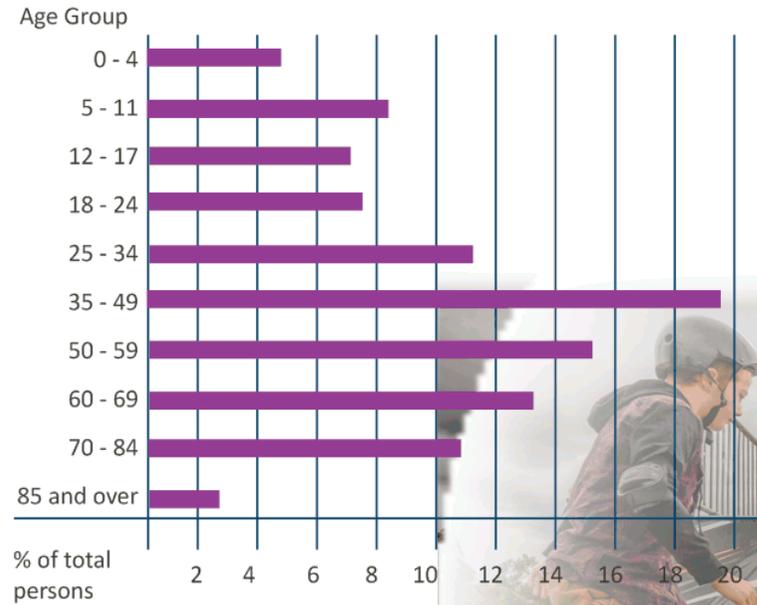
Photo: Taken of the NAIDOC week exhibition in Jindabyne



Snowy Monaro Community

Age Groups

The Age Structure of Snowy Monaro Regional Council provides insight into the level of demand for age based services and facilities.



Source: Australian Bureau of Statistics, 2016 Census



Photo: Amy Rendell - Skateboarding Jindabyne Skatepark

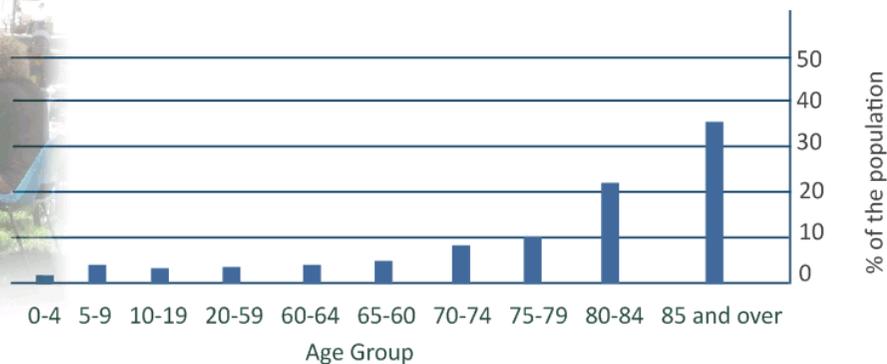


Population of the community requiring assistance

Snowy Monaro Regional Councils disability statistics help in understanding the prevalence of people who need support in the community.

“881 people or 4.4% of the population in Snowy Monaro Regional Council area in 2016, reported needing help in their day-to-day lives due to disability.”

- ABS 2016 Census



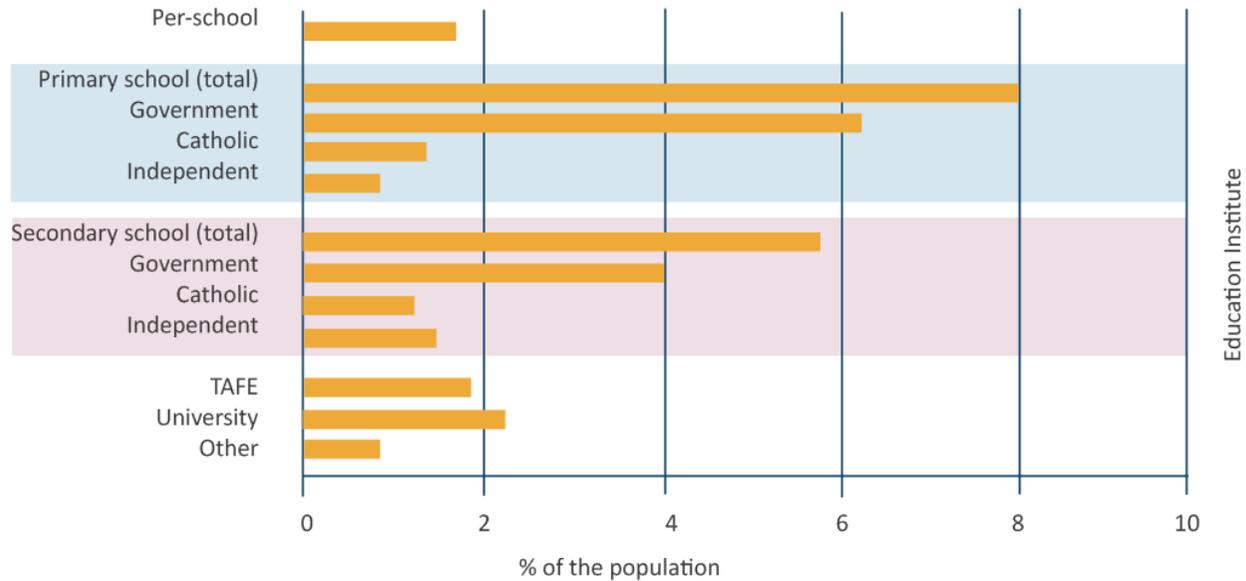
Source: Australian Bureau of Statistics, 2016 Census



Education

“Snowy Monaro Regional Councils population attending educational institutions reflects the age structure of the population, as it is influenced by the number of children attending school; proximity to tertiary education, which can mean young adults leaving home to be nearer to educational facilities and; the degree to which people are seeking out educational opportunities in adulthood, especially in their late teens and early twenties.”

- ABS 2016 Census



Source: Australian Bureau of Statistics, 2016 Census



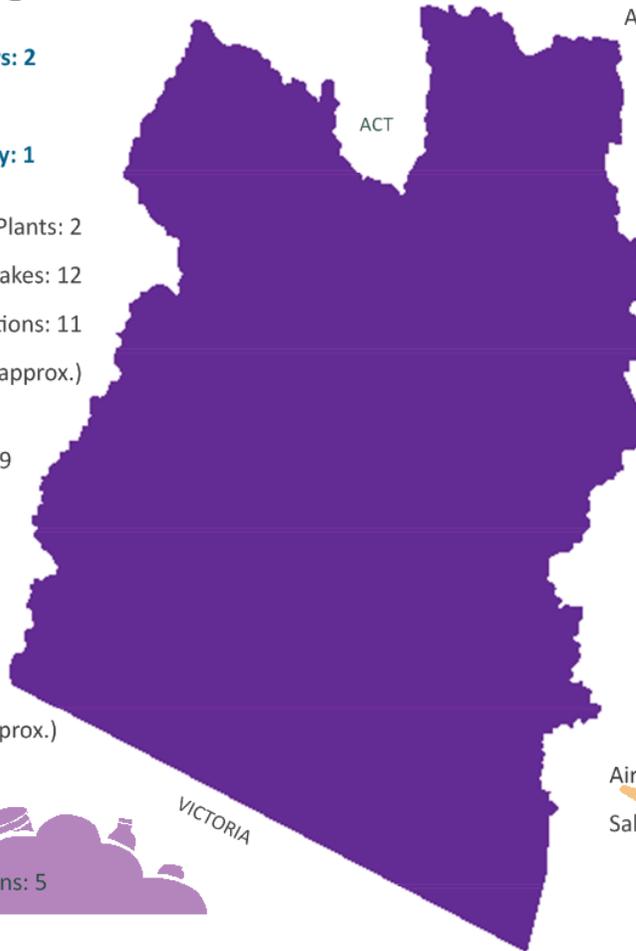
Snowy Monaro Regional Council Facilities

Council Offices: 4 **Visitor Centers: 2**
Works Depots: 5 **Library: 2**
Mobile Library: 1

Water Treatment Plants: 2
 Water Pump Station Intakes: 12
 Water Distribution Pump Stations: 11
 Water Reticulation Pipe: 330km (approx.)
 Supply Reservoirs: 39
 Supply Dams: 1

Wastewater Treatment Facilities: 8
 Wastewater Pump Stations: 28
 Wastewater Drainage Pipe: 280km (approx.)

Landfills: 5
 Transfer stations: 5



Doctors/Health Centres: 3
 Aged Care Facilities: 3



Child Care: 2

Halls: 15

Showgrounds: 7

Sporting/Recreation Fields: 19

Swimming Pools: 5

Properties: 22

Holiday/Caravan Parks: 5

Public Toilets: 21

Airports: 1

Saleyards: 2





Highlights

Despite a number of challenges Snowy Monaro Regional Council has achieved many successes since May 2016. Council has continued to deliver projects and plans developed by the former three Councils and also those identified by the newly formed Council. Some of these highlights achieved under Council's seven key directions identified in its Community Strategic Plan are detailed on the following pages under these headings:

Seven Key Directions

- Sustaining our Environment for Life
- Expanding Connections within the Region & Beyond
- Strengthening our Local Economy
- Creating a Safer, Healthier & Thriving Community
- Enhancing our Healthy, Active Lifestyle
- Managing Development & Service Delivery to Retain the Things We Value
- Providing Effective Civic Leadership and Citizen Participation



Photo: Jessica Plumridge - Windmill



Key Direction 1 - Sustaining Our Environment for Life

A healthy and functioning natural environment, which the community values and enjoys and which is protected and managed for future generations.

- Two grants were received from the Office of Environment and Heritage, one for \$10,000 for Bombala and Delegate heritage main street studies and \$40,000 for a general heritage study of the former Bombala Council area.
- Delivery of successful grant funded projects for weed management and associated biodiversity improvements to the value of \$500,000 including:
 - Public Reserves Management Fund
 - River Bank Rehabilitation Fund
 - Weed Action Program Funding
 - Biodiversity Grant Fund - connected landscape of roadsides, reserves, cemeteries and other Council assets.
- Through the sharing of knowledge and resources from the three former Council areas, an integrated approach to kerbside collections and management of waste facilities across the three regions to improve recycling rates and reduce environmental impacts associated with waste disposal was commenced.
- Consistent reporting against the quadruple bottom line was introduced early in the merger, improving consideration of environmental impacts when making recommendations to the Administrator.
- Storm water upgrade at Polo Flat and Jindabyne Landfill.
- Opening of the Snowy River and Cooma-Monaro Recycling Centres that encourages recycling and ensures longevity of landfills in the region, which has seen recycling increased by 200%.
- Completing the Lake Wallace Project to provide a constant water supply for Nimmitabel.
- Purchase of weed mapping software to ensure council is meeting its biosecurity information system requirements.
- Council held a Resource and Waste Expo in early 2017 to bring awareness to recycling, reusing and waste.
- Adoption of the Waste Management Charge Discount Eligibility Policy of 100% which removed fees for recycling of paper, plastic, glass and greenwaste. This adds to Council's environmental commitment to 'reduce, reuse, recycle'.
- Providing the Wheel In Wheel Out service for eligible residents who are physically incapable of wheeling bins to the kerb.



Photo: Celenia Rainbow - Snow Gum at Charlottes Pass



Key Direction 2 - Expanding Connections with in the Region & Beyond

A holistic approach to connecting our towns, people and businesses - both within the Region and to the wider world - through efficient use of funding, better transport systems and by maximising the potential of emerging technologies.

- Council has continued to work with the Canberra Region Joint Organisation of Councils (CBRJO) Economic Development workgroup to develop a CBRJO website designed to encourage people to visit, live, work and invest in the region.
- The Community Transport team has assisted approximately 927 clients over the past year, with volunteer drivers contributing 8,008 hours to this service and the community.
- A review of parking enforcement procedures was undertaken with a focus on enforcement of Disabled Parking spots and school zones focussing on No Standing Compliance.
- A new strategy for winter parking enforcement in Jindabyne, Council owned carparks, was prepared for the 2017 winter period to enable more efficient use of Council Ranger time during peak parking times, this included the Jindabyne foreshore.
- Works on Townsend Street (The Crack) Jindabyne were completed.
- Commenced works on the upgrade of Snowy River Avenue Jindabyne which includes upgrading the road, footpaths, parking in Kalkite Street and other cosmetic aspects to improve access, traffic flow and visitation.
- Council has made a considerable effort to find a compromise that would benefit residents living along Crown public roads, particularly in the township of Dalgety, and allow Council to undertake maintenance on behalf of the Crown. A Memorandum of Understanding (MOU) has been drafted and agreed by both Crown Lands and Council and is now ready for signature. The purpose of this MOU is “to provide a framework by which Snowy Monaro Regional Council can, when requested, undertake maintenance work as Private Work on Crown road Reserves. This MoU does not include the transfer of Crown roads (formed or unformed) to Council”.



Key Direction 3 - Strengthening our Local Economy

The region attracts increased investment and creates sustainable value in local employment industries. Residents have access to a range of learning opportunities that support future employment.

- The region was “put on the map” with the successful inaugural L’Etape Australia by Le Tour de France. This road race event saw Chris Froome, winner of the 2016 Tour de France participating. Chris will again be riding in the event in 2017 and plans are well advanced for this exciting second event. Council provided a substantial amount of assistance for this event with local communities also coming on board.
- The new Platypus Country Visitor Information Centre was completed early in 2017 and has received very favourable comments from visitors and locals alike.
- Council again supported the National Busking Championships held in Cooma. This event has continued to grow in popularity and last year attracted over 180 performers and around 3,000 visitors.
- The Cooma Saleyards complex benefitted from a major \$650,000 upgrade. This upgrade saw the old sheep yards gutted and replaced with new steel yards, new lighting, drainage upgrades and the installation of new water troughs.
- The development of an Economic Development Strategy for the region working in conjunction with Corview and the NSW Department of Industry and Investment was commenced.
- A new wrap on the outside of the Mobile Library, that was designed and created by Library staff in conjunction with photographer Charles Davis, reflects the beauty and history of the region from the snowy mountains to the plains and rivers, and has provided a much higher profile for the services. This has resulted in lots of positive feedback from the community which in turn has translated into continued support in both loans and visits.
- Commenced an MOU with SMEC Holdings that will see the SMEC fluid laboratory come into community ownership.
- Allocation of \$15m of funding across the region. \$14m of this was split equally between the three former shires. (Note: We were the only merged council that did an exact equal split.)
- Council encourages educational opportunities by partnering with the Country Universities Centre Snowy Monaro.



Photo: Cooma Sale Yards



Key Direction 4 - Creating a Safer, Healthier & Thriving Community

A safe and healthy community, rich in a diverse offering of activities and services available throughout the region that foster social connections and enhance wellbeing.

- The development and launch of the SnowyGuide App has increased awareness of local events and services, businesses and facilities across the region.
- The Scores-on-Doors program for retail food premises was expanded to include the former Snowy River Shire area to complement the existing Scores-on-Doors program that the former Cooma-Monaro and Bombala Council area had. This has resulted in Council now having a successful Scores-on-Doors program regionally which ensures that the objectives of the NSW Food Authority are being met and that the health and wellbeing of our community and visitors to our area is seen as a priority.
- In conjunction with Snowy Hydro, Council supports and provides facilities for the Young Driver Program. This program teaches high school students the risks and consequences of negligent driving.
- Council has continued to provide well maintained and safe infrastructure to enable the community to lead active and healthy lifestyles. This includes skate parks, swimming pools and other recreational facilities.
- The Disability Inclusion Action Plan was adopted.
- Commonwealth home support services were successfully accredited.
- There has been a significant increase in the number of young people attending the Hub youth services.
- Council actively supports various Men's Shed groups and facilities across the region.



Key Direction 5 - Enhancing our Healthy, Active Lifestyle

Through best use of our environment and natural assets, our community and our visitors enjoy an active lifestyle and recreation opportunities, which lead to improved health and wellbeing throughout their lives.

- The completion of the Hatchery Bay shared trail link from Jindabyne has provided additional opportunities for people to ride, walk and run.
- Council supported the park and playground redevelopment at Lions Park in Yallakool Road, Cooma. The total project cost was \$362,000 which included grant funding from the NSW State Government under the ClubGrants Program. The project included the construction of a children's playground with a section for access for all and a flying fox as well as improved car parking, enclosed off leash area for dogs, additional seats, picnic facilities, barbecues and walking paths.
- Improving disabled access into the Cooma Gymnastics and Basketball Stadium.
- Finalisation of design works for both Berridale and Jindabyne Skate Parks.
- Council has supported numerous events during the Administration period to encourage tourism and growth of the region. Some of these events include the Back to Cooma festival, the Bombala Bike Show, the Flowing Festival, the Water Ski National Championships and the Landrover 70th Anniversary Event. Council has also given donations to a number of smaller events and community groups.
- The replacement of the fence around the Bredbo Recreation Area oval was jointly funded by Council and the NSW State Government under the Crown Lands Program. The project was completed with the assistance of council's community maintenance team.
- Council in conjunction with NPWS are working to extend the shared trail from Gadens Trout Hatchery to Hatchery Bay.



Photo: Emma Louise Rolfe - Red Devils



Key Direction 6 - Managing Development & Service Delivery to Retain the Things We Value

Well-planned and managed growth that takes place in ways that meets community expectations and respects our values. Region-wide growth is supported by high quality water, sewage and waste infrastructure, within our economic means.

- Installation of water meters in Delegate as first phase of introducing potable water to the community, as well as operation and maintenance improvements at the Bombala Water Treatment Plant.
- A project plan for consolidating the three existing Local Environmental Plans has been developed.
- Council facilitated the Monaro Regional Housing forum, supporting sector development & improving service access for community members regarding affordable housing choices across the region.
- Funding under the Stronger Communities Fund was dispersed.
- Major Projects funding has been allocated and works on these projects have commenced. All planning and infrastructure will be completed by May 2019.
- Council has expressed interest in the former Jindabyne Community Health building, in Bent Street Jindabyne, for use as an education/innovation hub. There is strong community support however, an EOI needs to be formalised.
- Council has commenced acquisition of the Old Bombala Infant School in Wellington St Bombala. This building is currently owned by Tafe NSW and involves a large building with surrounding land. There is currently a small group of Bombala volunteers who are keen to see the building used for an Arts Centre.
- New town signage has been installed across the region.
- Planning for the beautification of townships across the region has commenced.
- Providing higher quality water and sewer services for Bombala by having the resources to clean, improve and maintain infrastructure and apply for funding for further works.
- Council completed a review of all operational land and buildings across the region, this led to Council finalising two strategic land transactions that were previously identified by the former Snowy River and Cooma Monaro Councils. These transactions were the purchase of 56-59 Vale Street Cooma and the sale of the Jindabyne airfield. Note: Funds for the purchase of the Vale Street property came from previous Cooma Council land sales in Wangie Street Cooma and the Jindabyne Airfield sale. The Vale Street property currently receives income from 3 tenants and had previously been identified by the Cooma Council as a strategic community site. Council can now decide on whether it wants to provide "long vehicle" CBD parking, a Council "disabled friendly" meeting room or any other civic use. This review also identified that Council owns many other assets across the region, with the potential to be put to better community use.
- Water and Wastewater charges were significantly reduced for developers. This was introduced to encourage growth and development across the region.



Key Direction 7 - Providing Effective Civic Leadership and Citizen Participation

Local Government effectively represents our community and provides people with opportunities to participate in local decision-making. Council's governance systems deliver efficient management that meets community expectations, balanced with our ability to resource these needs.

- The Transition Plan provided an excellent framework for the implementation and monitoring of Council's merger project. Many benefits have been achieved, including; 80 baseline service reviews, a review and allocation of people and asset resources, a robust community engagement strategy and a permanent structure aligned with strategic workforce planning principles. The development and adoption of our organisation's vision and values provides a necessary platform for transformation strategies to achieve a stronger more efficient council.
- Establishment of Local Representative Committees (LRCs) for three former Council areas provided a conduit between the community and Council and helped smooth the transition from three former Council areas to one regional Council.
- In an innovative move, Council meetings are now webcast. This will allow interested community members across our wide geographical area to view Council meetings as they happen.
- Council celebrated NAIDOC week with a 'Meet the Elders' celebration and morning tea at Jindabyne, and inspiring exhibitions at the Raglan, Bundian Way and NWPS galleries.
- The inaugural Regional Networking Expo was introduced as a means to connect council with the community as well as different communities with each other. Guest speakers were invited to speak to attendees, as well as marketing campaigns and new initiatives within the council were launched
- Increased community consultation was able to be undertaken
- Development of our corporate video.
- Implementation of the Snowy Monaro Regional Council Audit, Risk and Improvement Committee. This was an expansion of the role for the former Snowy River Audit Committee and is in line with the State Government requirements for improved internal auditing by councils.
- Harmonisation of Integrated Planning and Reporting suite of documents.



Council’s Financial Position

[Additional details can be found in the adopted Snowy Monaro Regional Council 2018 Revenue Policy and 2018 Operational Plan.](#)

2018 Budget Income	\$73,753,000
2018 Budget Operational Expenditure	\$72,928,000
2018 Budget Operating Result	\$825,000
2018 Budget Capital Expenditure	\$39,577,863
which includes	
Stronger Communities Fund Major Projects Program (SCF MMP)	\$14,000,000



What's Next?

The election of Councillors for the inaugural Snowy Monaro Regional Council was held on 9 September 2017 where 11 Councillors were elected. I would like to extend my congratulations to those who were successful.

Following the declaration of the poll by the NSW Electoral Commission the successful candidates were advised.

The inaugural Meeting of Snowy Monaro Regional Council is being held on Tuesday, 26 September 2017 in the Cooma Council Chambers. At this meeting the election of Mayor and Deputy Mayor (if required) will occur as well as the setting of meeting dates and times.

A series of induction sessions have been organised to facilitate the transition of elected Councillors into their roles. These sessions will cover key topics such as the Code of Conduct, Code of Meeting Practice, Conflicts of Interest and a Vision and Values Workshop. In addition, Councillors will attend a workshop facilitated by the Office of Local Government called "Hit the Ground Running". This workshop will assist Councillors to understand their responsibilities and update their skills and knowledge.

Training will be extended through the year to include the following:-

- Australian Institute Company Directors - 2 day course to be arranged;
- Local Government Finance Training; and
- Local Government Planning Training.

Section 232 of the Local Government Act 1993 prescribes that Councillors "make all reasonable efforts to acquire and maintain the skills necessary to perform the role of Councillor". This training program will assist Councillors to attain this goal.



Challenges

The creation of one council from three former councils was always going to be a challenge. The three former Councils operated in very different ways, with differing service levels and standards, modes of delivering those services, staffing models and the way they interacted with their communities. However, for the majority of our residents and ratepayers it has been business as usual. Service harmonisation will continue to be a challenge for some time to come.

The financial cost of bringing three Councils together was always going to be a relatively expensive exercise, even though the NSW State Government provided \$5 million for this process. Expenditure will continue to be required to fund a number of projects, including the upgrading of council's corporate systems.

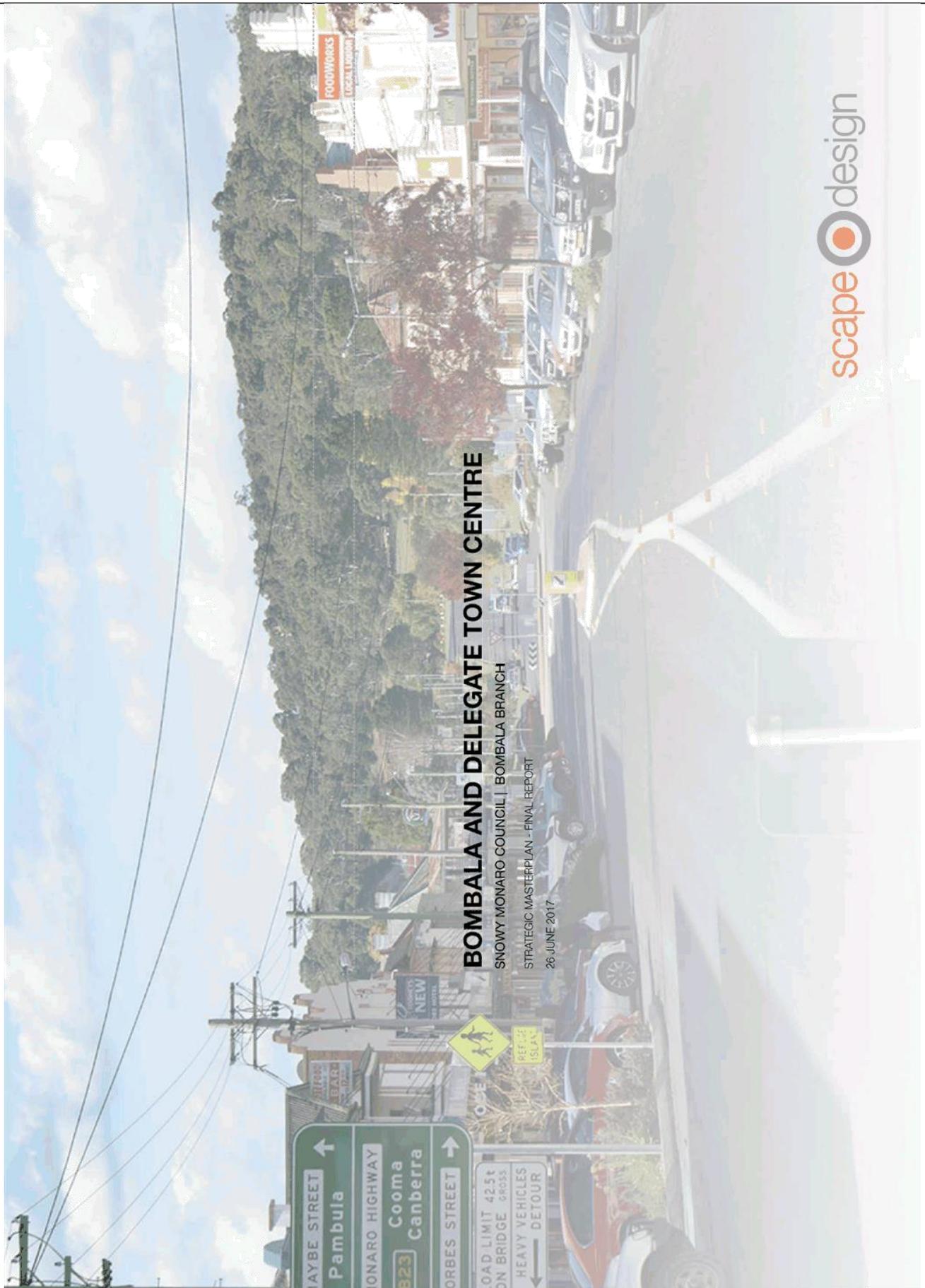
Over the next two years Council is expected to deliver approximately \$30 million worth of capital works, this is in addition to our normal business as usual maintenance and construction projects. Whilst this is a great boost to our community and a once in a lifetime opportunity, the logistics of undertaking such a large amount of projects will test Council's resources.

The announcement of Snowy Hydro 2.0 was very welcome. This project will generate wonderful opportunities for the region for many years to come. However, it will also provide some challenges with competition for employees and the provision of infrastructure requirements for an expected 5000 employees.



Back Cover: Andrew Barnes - Monaro Rainbow





BOMBALA AND DELEGATE TOWN CENTRE

SNOWY MONARO COUNCIL | BOMBALA BRANCH

STRATEGIC MASTERPLAN - FINAL REPORT

26 JUNE 2017

BOMBALA AND DELEGATE TOWN CENTRE



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<https://www.snowymonaro.nsw.gov.au>

VERSION CONTROL

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1 Introduction and overview

1.1 Introduction

Scopie Design Pty Ltd has been engaged by Snowy Monaro Council - Bombala Branch, to prepare a high-level, strategic masterplan for town centre improvements for the towns of Bombala and Delegate in Southern New South Wales. The masterplan aims to respond to initial issues raised by council concerning the functioning and aesthetic qualities of the town centres and to seek out other shortfalls that can be improved and develop strategies for implementing these improvements. Following council adoption of these strategies and consultation with the local community, subsequent design stages will be required in order to detail design the implementation of these outcomes.

The need for improvements has come about from council recognising that shortfalls in the planning, urban design and aesthetics of the town centres have impacted and continue to impact the functioning and growth of the towns, which in turn has had a detrimental effect on development and tourism.

In order to address these concerns as part of a long-term response by council the strategic masterplan is founded on gaining an understanding of the town centre geographic layout, physical constraints and features, user groups and modes of transport in order to analyse opportunities and constraints, develop objectives and principles and establish urban design guidelines. Whilst similar goals have been outlined for both towns, the key challenge has been to respect and reinforce the town's unique identities and 'sense of place'.

Essential to ensuring a quality outcome in future stages is the recognition of the need for efficient, targeted delivery of funds to key design components and site locations and achieving funding from a variety of sources.

1.2 Methodology (Phase 1)

The strategic masterplan (Phase 1) has involved the following processes:
Table 1-1: STRATEGIC MASTERPLAN METHODOLOGY

STAGE/TASK	RELATIONSHIP TO PROPOSAL
PHASE 1A: Site analysis	— Ensure client supplied information is provided, to understand all currently known issues and to refine project scope — Ensure stakeholder groups are revealed and issues presented for inclusion in the design process.
Meet with council representatives and internal stakeholders	To gain an understanding of the site and surrounds
Physical site inspections	To gain an understanding of site context and site related issues
Analytical desktop studies, including: — Geographic features and topography — Native and cultural vegetation — Parklands and undeveloped lands — Land use and town planning — Transport routes and facilities — Heritage items including non-classified.	To gain an understanding of similar project approaches and outcomes
Review recent town centre redevelopment precedents	To gain an understanding of potential urban design drivers
Review related studies, concepts and proposals, including: — Bundala Way (Delegate) — Rail Trails (Bombala)	To gain an understanding of other site related issues
Review council supplied information	To gain an understanding of previous project approaches and outcomes
Review previous town centre related proposals (Bombala 1984 & 2003)	To ascertain what is feasible where under the control of guidelines and standards and identify future design processes that will be required should the project proceed.
Review relevant guidelines, including: — RMS traffic design guidance.	

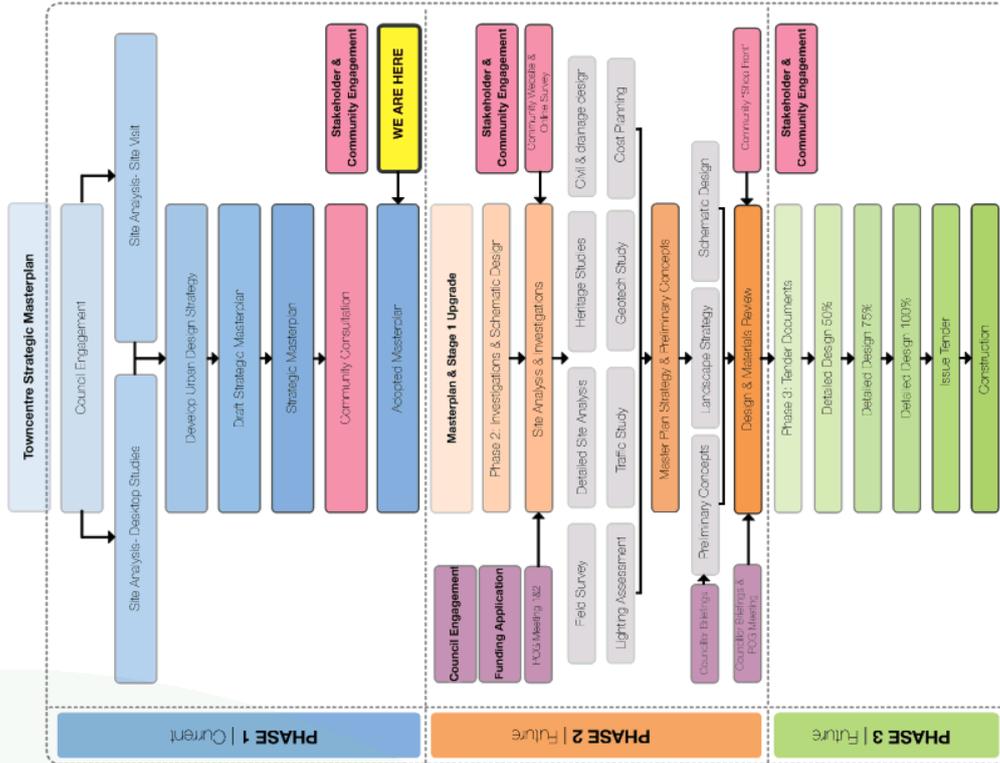
STAGE/TASK	RELATIONSHIP TO PROPOSAL
Prepare site analysis drawings and diagrams	To present the findings of the site analysis studies
PHASE 1B: Draft strategic masterplan	Summarise the site analysis, contextual and related studies into a series of clearly defined issues - what are the questions that need answering?
Prepare draft opportunities and constraints	Summarise the outcomes that are to be addressed by the strategic masterplan
Prepare draft objectives and principles	Summarise graphically the outcomes that are feasible and set a direction for future design stages of the proposal
Prepare draft urban design strategy	Seek client approval of study outcomes and director
Submit for council review	Finalise the site analysis, contextual and related studies generated issues
PHASE 1C: Final strategic masterplan	Finalise the outcomes that the strategic masterplan aims to address
Prepare final opportunities and constraints	Finalise the design outcomes
Prepare final objectives and principles	Seek community input in order to understand community reaction to the current proposal and to set the direction for the next design stages.
Prepare final urban design strategy	
Submit for community consultation	
PHASE 1D: Adopted strategic masterplan	
Council meetings undertaken	Review and agree community consultation outcomes
Council resolutions passed and advised to consultants	Advise consultants on changes to the Final Strategic Masterplan
Strategic masterplan updated and resubmitted to council	Record agreed outcomes of the strategic masterplan phases for future use as a guideline document

Plate 1-1: Monaro Highway bridge crossing of the Bombala River (previous page)

1.3 Future steps (Phases 2 & 3)

Following completion of the Phase 1 strategic masterplan activities and subsequent community consultation, the ongoing development of the master plan would involve tasks as described in the following indicative staging plan.

Figure 1-1: Future steps flow chart (right).



1.4 Objectives and principles

Urban and Landscape design objectives

The urban design vision for the Bombala and Delegate town centres is derived from a series of shared objectives that drive goals and outcomes common to both towns (refer [Table 1-2](#)). By defining what we wish to achieve as part of the strategic masterplan process, these objectives assist with highlighting constraints or shortfalls that need to be mitigated.

Table 1-1: URBAN DESIGN AND LANDSCAPE OBJECTIVES

URBAN AND LANDSCAPE DESIGN OBJECTIVES	
C1	To ensure facilities and attractors are provided, well located and utilised to their full potential so that they contribute to the future development of the towns
C2	To ensure that town centres are easy to navigate and utilise clear wayfinding logic and signage
C3	To ensure that parking is appropriately located, sized and sign-posted
C4	To reduce heavy vehicle movements through the town centres in order to improve pedestrian safety and increase amenity for local residents and tourists
C5	To ensure town centres exhibit a 'sense of arrival', are well presented and architecturally consistent
C6	To ensure that parklands are provided for the enjoyment, relaxation and recreation of local residents and tourists
C7	To ensure regional facilities, attractors and neighbouring towns work together as a network for the betterment of the region as a whole
C8	To ensure utilities are rationalised and well planned in order to minimise their intrusion on to the public domain

Principles diagrams

The principles for the Bombala and Delegate town centre revitalisations are driven by the urban and landscape design objectives and revolve around the central idea of providing pedestrian connectivity. The process of applying connectivity works across all objectives as

- 1 Analyse existing urban fabric
- 2 Improve pedestrian connectivity
- 3 Improve pedestrian environment and safety
- 4 Provide pedestrian amenity
- 5 Provide a complete street.

Pedestrian through links/ arcades can be applied to both Bombala and Delegate town centres. The following principles diagrams represent the proposed pedestrian connection between Therry Street and Mayo Street (refer [Figure 1-2](#)).

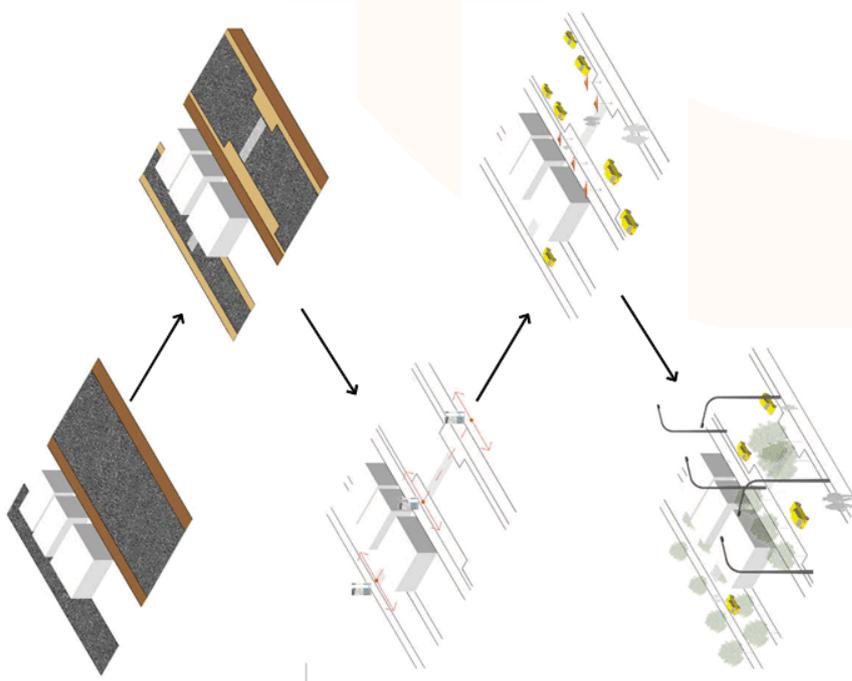


Figure 1-2: Principles diagrams

1.5 Regional transport and tourist routes

Critical to the implementation of the strategic masterplan is gaining an understanding of town user groups and why they visit the towns, how they get there, how long they stay, where they have come from, where they are going to and the routes they are most likely to use. A brief desktop analysis has revealed a diverse range of users (refer [Figure 2-2](#) and [Table 2-4](#)). In addition to understanding tourist movements and needs, the movement of freight through the region is also of great importance. Heavy vehicles passing through the towns triggers certain requirements of the road network and prevents certain types of modifications from being carried out.

Freight movements

Broadly speaking, the main freight transport route affecting the region is from Canberra to Melbourne and associated sub routes along the way, depending on the source and destination of the goods involved. Traffic between Sydney and Melbourne would have little impact on the region as the dominant route is the Hume Highway via Albury to the west. A majority of the B-double freight is associated with the timber harvesting industry, with many logging areas around both towns. Locally speaking, the key freight movements are:

- Bombala to Cann River via B23/Monaro Hwy, then to Eden via Inlay Road and the A1/Princes Highway east or to Melbourne via the A1/Princes Highway west
- Delegate to Orbost via WR830/Delegate Rd, then C612/Bonang Road south of the Victorian Border
- Delegate to Bendoc via Lower Bendoc Rd/ Haydens Bog Rd, then to nearby forestry areas (Note this is also considered a tourist route)

The route from Bombala to Eden via the Monaro Hwy from Bombala then across the Inlay Road turns off approx. 30k south of Bombala). The Inlay Road then intersects with the Princes Hwy South of Eden near the chip mill road (which services the chip mill and the multi purpose wharf). Whilst Inlay road is owned and maintained by the NSW Forestry Corporation it is open to general traffic including tourists.

Traffic from Bombala to Melbourne continues down the Monaro Hwy to Cann River then along the Princes Hwy to Melbourne. The Delegate Road (MR30) which leads to Orbost is really only a tourist route as the Victorian section is narrow and winding, however the section of MR 93 from Delegate to Bombala is a main corridor in use by logging trucks heading East from the Victorian hardwood forests (however these turn down the Monaro Hwy just South of Bombala and don't come into town).

A heavy vehicle alternative route (refer [Figures 1-3, 1-4, 2-3 and 3-3](#)) is required in order to free up heavy vehicle movements from the town centre main streets. Council are currently planning to provide an alternative heavy vehicle

route via Maharratta Street on the north side of town and a new bridge connection over the Bombala River to Bright Street on the south western side of town. This alternative route will assist with reducing heavy vehicle traffic and enabling improvements to the main street focused on pedestrian usage and parking. As heavy vehicle access will remain however, major pedestrian improvements eg. footpath widening will not be completely possible due to the require road widths.

Tourist movements

A brief desktop study and discussions with the project team have determined that a majority of tourists in Bombala and Delegate are transient i.e. passing through the towns on their way to other attractions in the region or travelling alternative routes between Sydney and Melbourne. Local residents in the Monaro District also travel in the area, as do people visiting towns and attractions along the NSW South Coast. These tourists are often 'day trippers', looking to diversify their travel experience or 'accidental tourists' who discover the towns and are interested in experiencing, albeit briefly, the attractions found within and around the towns. Sources of tourists from further afield would travel by road from as far as Canberra and from Merimbula which both have airports serviced by major airlines.

Attractions that are known to bring tourists to the local area are:

- The visual experience of driving through historic towns, undulating pastoral lands and vegetated gullies and ridgelines of the Monaro District
- Native fauna, in particular Platypus, which can be viewed in their natural habitat in both the Bombala and Delegate rivers as well as the Platypus Reserve located 4 km south west of Bombala
- A variety of heritage buildings, including churches, public halls, historic schools. Of special note is the Bombala Museum and Railway lands in Bombala and the "Early Settlers Hut" in Delegate
- Recreational facilities, bush walks and river walks in towns, National Parks and nature reserves, many associated with rivers
- Aboriginal history, particularly in Delegate, which is located on the recently rediscovered Bundian Way, an aboriginal movement corridor between Mount Kozcuszko in the Great Dividing Range and Twofolds Bay near Eden on the coast

The following table summarises key freight and tourist groups, how they interact with the towns, their requirements and potential actions to increase tourist visitation and decrease heavy vehicle influences (refer [Table 1-2](#)):

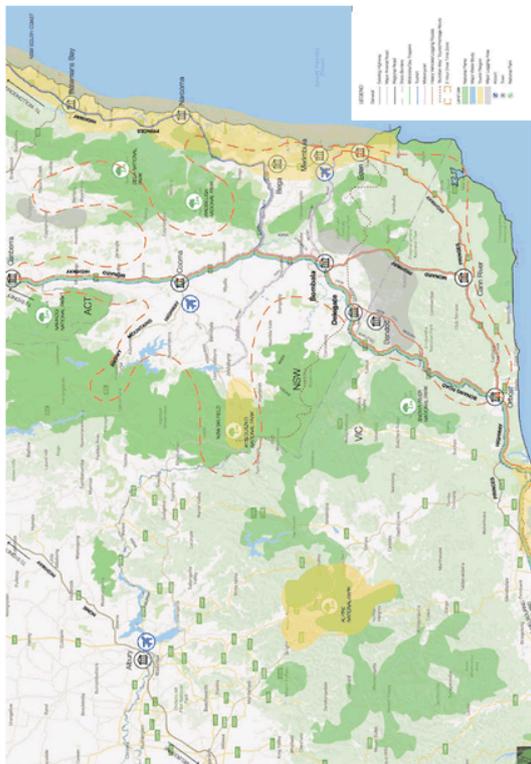


Figure 1-3: Tourist and freight routes in the region (Google maps and Snowy Monaro Council. Additional artwork by Scape Design)

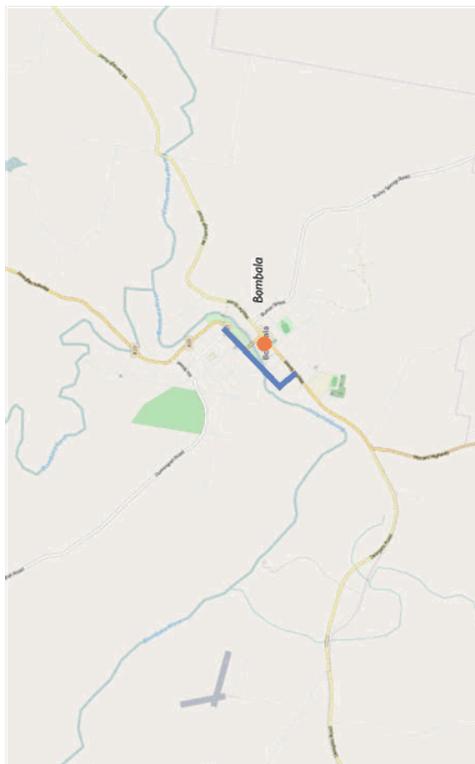


Figure 1-4: Heavy vehicle alternative route (Map: Open Data Commons Open Database License. Additional artwork by Scape Design)

Table 1.2: TOURIST AND FREIGHT ROUTES, IMPACTS AND NEEDS

TOWN/USER	DESTINATION	SOURCE	NEEDS	OPPORTUNITIES & CONSTRAINTS
BOMBALA	Freight	Cann River/ Eden Cann River/ Melbourne	<ul style="list-style-type: none"> — Dedicated parking, toilets — Access to main street/shops 	<ul style="list-style-type: none"> — Heavy vehicle movements impact road design opportunities and block main streets — No real opportunities in town for dedicated parking, truck rest stop on highway may be required — Heavy vehicle alternative route.
		Philip Island Organised Rides Scenic Rides	<ul style="list-style-type: none"> — Dedicated parking, accommodation, toilets — Access to main street/shops 	<ul style="list-style-type: none"> — Dedicated parking area not currently provided. Therry Street/ Swimming Centre carpark possible location
	Motorcyclists	Sydney (anc. potentially QLD) Canberra/ Cooma/ South Coast	<ul style="list-style-type: none"> — Access to main street/shops 	<ul style="list-style-type: none"> — Caravan Park needs better connectivity to main street retail and food — Playground and upgraded amenities needed to improve visitor experience — Limited catering/ no fine dining in main street and riverfront — Limited potential for interaction with river
	Caravans/RVs	Merimbula/ Coastal NSW/ Queensland	<ul style="list-style-type: none"> — Access to main street/shops 	<ul style="list-style-type: none"> — Caravan Park needs better connectivity to main street retail and food — Playground and upgraded amenities needed to improve visitor experience — Limited catering/ no fine dining in main street — Potential for interaction with river
DELEGATE	Freight	Orbost/ Bendoc	<ul style="list-style-type: none"> — Dedicated parking, toilets — Access to main street/shops 	<ul style="list-style-type: none"> — Heavy vehicle movements impact road design opportunities and block main streets — Potential to create off-street truck parking in town centre
		Philip Island Organised Rides Scenic Rides	<ul style="list-style-type: none"> — Dedicated parking, accommodation, toilets — Access to main street/shops 	<ul style="list-style-type: none"> — Dedicated parking near Delegate Hotel eg on-street parking and potential heavy vehicle off street parking area — Limited retail and dining options — Caravan Park needs better connectivity to main street retail and food — Playground and upgraded amenities needed to improve visitor experience — Limited catering/ no fine dining in main street — Potential for interaction with river
	Motorists/ Day Trips including 'accidental tourists'	Local attractions: — History museum — Early settlers hut — Bundian Way Gallery.	<ul style="list-style-type: none"> — More retail/eating options 	<ul style="list-style-type: none"> — Further promotion and tourism campaigns — Limited catering/ no fine dining in main street and riverfront — Gallery expansion throughout venues on main street, artist (indigenous/ non-indigenous) camps/ retreats/ retail
	Visiting Friends & Relatives	Delegate residential area & surrounds	<ul style="list-style-type: none"> — Linkages between main street and river front 	<ul style="list-style-type: none"> — Limited catering/ no fine dining in main street and riverfront eg 'River Cottage' — Further promotion and tourism campaigns — Hiking/ camping supplies
BOMBALA	Freight	Cann River/ Eden Cann River/ Melbourne	<ul style="list-style-type: none"> — Clear signage/ access/parking at Visitor Info. Centre — Swimming Centre parking & toilets — Access to main street shops 	<ul style="list-style-type: none"> — Different arrival experience n/b - s/b — Lack of wayfinding and parking to Visitor Information Centre/ Museum/ Railway lands — Lack of wayfinding from Therry Street/ Swimming Centre carpark to main street. Upgraded amenities require — Poor connectivity from Therry Street/ Swimming Centre carpark to main street — Limited catering/ no fine dining in main street and riverfront — Limited potential for interaction with river
		Philip Island Organised Rides Scenic Rides	<ul style="list-style-type: none"> — Access to main street/shops 	<ul style="list-style-type: none"> — Caravan Park needs better connectivity to main street retail and food — Playground and upgraded amenities needed to improve visitor experience — Limited catering/ no fine dining in main street and riverfront — Limited potential for interaction with river
	Motorists/ Day Trips including 'accidental tourists'	Local attractions: — Platypus in river — Platypus Reserve — Historical towns and sites — Gourmet Food tourism — South East Forests/ National Parks — Fishing.	<ul style="list-style-type: none"> — Linkages between main street, river front and railway precinct 	<ul style="list-style-type: none"> — Further promotion and tourism campaigns — Hiking/ camping supplies
	Visiting Friends & Relatives	Bombala residential area & surrounds	<ul style="list-style-type: none"> — Linkages between main street, river front and railway precinct 	<ul style="list-style-type: none"> — Further promotion and tourism campaigns — Hiking/ camping supplies

1.6 Car parking and road geometry

Existing conditions

A high level review of existing and potential parking types has been undertaken, including a review of precedents. As is the case with many regional towns, pavement widths are substantially greater than what might be expected given the relatively low traffic volumes. This stems from a variety of reasons including:

- Highway route/ former highway route
- Large vehicle types, including large transport vehicles
- Varied vehicle types, including farming machinery
- Ample space with few constraints
- Less structured road environment, general lack of defined pedestrian and bicycle provisions.

The road corridor width is often largely occupied by road pavement, which serves the dual purpose of vehicle travel lanes, parking, cycling and pedestrian activities, with little in the way of in-marked spatial definition. This is particularly the case in Delegate, where the road corridor is dominated by road pavement and parking, with little or no facilities for pedestrian and cyclist activities. The main street of Bombala is structured/formalised, however requirements of the highway route have prevented significant improvements to cycling and pedestrian facilities.

Another point of note is that medians are not present in either town, presumably a result of the main streets having been a designated highway and heavy vehicle route, with the resultant pressure on road widths preventing medians.

The existing typical parking layouts and road geometry details are summarised in the below table (refer Table 1-3)

Table 1-3: EXISTING CAR PARKING AND ROAD GEOMETRY

CORRIDOR WIDTH	ROAD PAVEMENT WIDTH INCL. PARKING	LANE NO./WIDTH	PARKING DEPTH	PARKING TYPE	FOOTPATH WIDTH
BOMBALA					
Maybe St - 3C metres approx.	22.6m (75%)	2 / 6.3m	5.0m	— Angled, 45° rear to kerb	7.8m (23.26%)
Forbes St - 3C metres approx	22.0m (73%)	2 / 6.0m	5.0m	— Angled, 45° rear to kerb	4.4m (15%)
DELEGATE					
Bombala St - 30 metres approx.	25.0m (83%)	2 / 5.7m	6.8m	— Angled, 90° nose to kerb/rear to kerb	4.0 (13%)

Precedents
A high level review of regional town centre precedents has been undertaken in order to understand parking and road geometries in similar towns of regional NSW. The towns considered are as follows:

- Goulburn, NSW
- Borrova, NSW
- Singleton, NSW

Further detailed analysis would be required to gauge exact measurements, however the following similarities are of relevance and establish a broad context for the proposal, these are summarised in Table 1-4.

The Goulburn and Singleton precedents are relevant to Bombala due to the similar population and the rural CBD context. Road corridor widths are similar however different approaches have been taken.

Auburn Street, Goulburn is a former highway through town, which was diverted some 10+ years ago. The street utilises angled parking (nose to kerb) with a waiting lane, with kerb blisters employed at pedestrian crossings and intersections in order to reduce crossing distances. A median is also employed, which acts as a full length refuge island and prevents cars crossing the road to park. Roundabouts at each end distribute traffic and allow legal 'U' turns so that vehicles may switch sides to park.

John Street, Singleton, is a more recent upgrade as part of a town centre revitalisation project. Lane widths have been narrowed to 3.25m following heavy vehicle diversions and rear-lane servicing of shop fronts. Parking has been

converted to parallel following the introduction of several off-street parking facilities. The local speed limit has been reduced to 40 km/h and several raised pedestrian crossings provided along with many blisters along the road for crossings, seating and landscaping. Raised crossings and lane widths were designed to maintain garbage collection and local bus services

Pudman Street, Borrova has also had a recent upgrade comprising footpath widening, kerb blisters and street tree planting, crossings and roundabouts. Two parking types are employed, being a combination of parallel and angled (nose to kerb). A median is provided to separate traffic lanes

Local Area Traffic Management Guidelines

Austrroads with Roads and Maritime Service have produced a series of guideline documents known as the *Austrroads Guide to Traffic Management*, which includes Part 8 – *Local Area Traffic Management (LATM)* for local area traffic management and design. The guidelines recommend that a systematic approach is taken to traffic design in order to ensure that regulations, good practices and specific needs of road users are addressed and to ensure the principles and objectives of the LATM are implemented. Further community consultation will be required in order to test community reaction to proposed traffic changes beyond those already proposed in the strategic masterplan. A specialist traffic/civil engineer should be involved in traffic design as the project moves beyond the strategic masterplan phase



Page 1-1: Forbes Street, Bombala, looking south



Page 1-2: Maybe Street, Bombala, looking east

Table 1-4: PRECEDENT CAR PARKING AND ROAD GEOMETRY

ROAD NAME	HIGHWAY / HEAVY VEHICLE ROUTE	WHEN UPGRADED	NO. OF LANES	MEDIAN / BLISTERS	REBOUT	PARKING TYPE	POPULATION
GOULBURN							
Auburn Street	Former 'A' class / current	10+ years	2	Yes / Yes	Yes	— Angled, 45° nose to kerb — Waiting lane	29,500
BOOROVA							
Pudman Street/ Lechten Valley Way	'B' class' / current	5 years	2	Yes / Yes	Yes	— Varies - Angled, 45° nose to kerb & parallel	1,200
SINGLETON							
John Street	never / former	2 years	2	No / Yes	Signals	— parallel	17,000

2 Bombala

2.1 Location

The town of Bombala is located near the border of New South Wales and Victoria about 485 km south of Sydney and 530 km east of Melbourne (refer Figure 1-1). Regionally, the town lies about 203 kilometres (km) south of Canberra, 377 km south east of Albury and 85 km west of Merimbula. The Bombala local area is located within the Snowy Monaro region and adjoins the Bega local government area in NSW and East Gippsland Shire Council in Victoria. The towns of Bega, Merimbula and Eden lie between 80 to 100 km to the east and Cooma, 88 km to the north are key regional centres supporting commerce and tourism. The Bombala area is known as a scenic tourist route in the broader Snowy Mountains region.

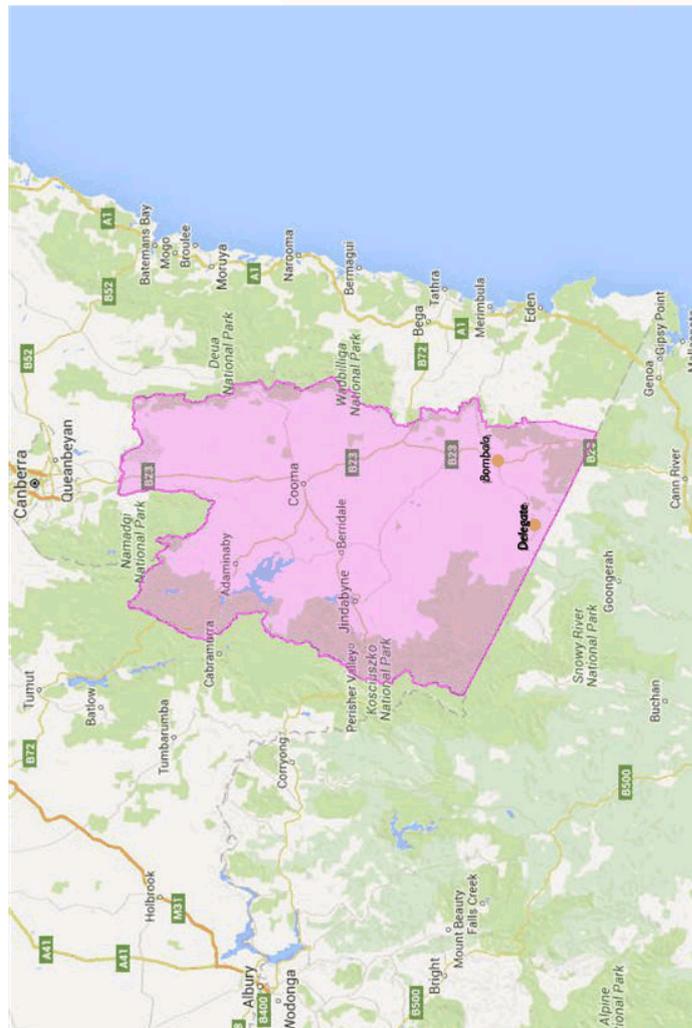


Figure 2-1: Location and local government area map (Google maps and Snowy Monaro Council)

Plate 2-1: Forbes Street Bombala (previous page)

2.2 Cultural Context

Heritage

Aboriginal heritage

The Bombala area was inhabited by the Ngaigo. Aboriginal people prior to the first European settlers arriving in the 1830s. The land including and surrounding the town is considered culturally important to Aboriginal people due to the subtly undulating, vegetated terrain with good access to the fresh water of the Bombala River. The general area would contain sites of aboriginal significance. The name 'bombala', a word from the Ngaigo, can be translated as 'a place where the waters meet'.

Non-aboriginal heritage

Captain Ronald Campbell established a large property in 1833 that he named 'Bombalo'. More European settlers arrived in the Bombala area in the 1840s during which time the small township developed. Bombala had a post office by 1849 and had a number of large commercial and public buildings by the mid 1850s.

Bombala was proposed in 1903 by King O'Malley (a prominent figure of Australian politics during Federation whilst he was a member of the Australian Labor Party and House of Representatives), as the site of the parliamentary seat of Australia. It was considered as a location because it was half way between the two cities of Sydney and Melbourne. The proposal was ultimately rejected in favour of Canberra, which was named in 1913.

The Snowy River March which commenced from Delegate in 1916 went via Bombala to Goulburn. Also known as the 'Men from Snowy River' recruiting march, the march was a means of enlisting volunteers into the army to fight in the First World War. A cenotaph reflecting on the march and recalling names of the fallen can be found at the corner of Maybe Street and Forbes Street, whilst another memorial to the Anzacs can be found on the northern banks of the Bombala River.

Demographics

Bombala was reported to have a population of 1,211 in the 2011 census, which remained relatively static since the 2001 census. Children aged 0 - 14 years make up 18.6% of the population and people aged 65 years and over made up 20.4% of the population. The median age is 45 years old, which is older than the state average of 37. The population in Bombala is likely to continue to age, with younger people and families living in larger towns and cities, however Bombala has a reasonable amount of industry, commerce, schools and other facilities likely to encourage the retention of this age group.

Land Use

Current land uses include large-lot rural-residential properties, denser single-lot residential development north of the town and a variety of commercial business on Maybe Street. Timber, cropping and grazing land uses dominate the surrounding area and the area is known for producing plants (lavender), herbs and meat. Several church properties, schools, parks, car yards, a golf course and a showground can be found in the town.

Utilities

Major utilities include electrical services managed by Essential Energy, comprising a primarily aerial power network feed to poles throughout the town. Water, Telstra and sewer utilities are also located within the proposal area. Gas services are managed by APA Group.

2.3 Landscape Context

Geology

Geological investigations of the southern tablelands of NSW were undertaken in 1994 by J.S Benson. These investigations suggest underlying rocks are mainly Palaeozoic sediments which have been folded, faulted and metamorphosed during the formation of the Lachlan Fold Belt. There is a number of granite intrusions into the Palaeozoic sediments as well as Eocene Basalt characterising the elevated regions between Cooma and Bombala. The local soils comprise of residual chondritic soils or crinoids on the high basalt plateau between Cooma and Bombala with red grey and brown clayey soils elsewhere on the tableland.

Climatic factors

Bombala's climate is classified as a warm and temperate with significant rainfall all year round. Bombala is known for its cold winters with frequent frosts and occasional snow. Climate Data from the Bureau of Meteorology reveals that July is the coldest month, with a mean daily maximum temperature of 10 degrees and a mean daily minimum of 3 degrees.

Rainfall data suggests that November is the wettest month in Bombala with 77 millimetres of rainfall over 14 days. The driest month is May with 31 millimetres of rain over 10 days. Rainfall is primarily characterised by thunderstorms in Summer and cold fronts in Winter. The annual rainfall of Bombala in 2015 was 606 millimetres (BOM 2016)

Landform and topography

Bombala is situated 705 metres (m) above sea level (a.s.l) on the eastern edge of the Monaro Tablelands. The surrounding area consists of relatively subtle undulations, with the nearest high point of the Endeavour Reserve Lookout about one kilometre south of the town reaching 843 m.a.s.l

Hydrology and drainage

The town is located in the Monaro region, where drainage generally tends to follow its north-south orientated bedrock, however some rivers divert to the coast. Specifically, the town falls within the Bombala River Catchment, which flows to the Snowy River and ultimately the Bass Strait near the town of Orboost. The condition of the river is varied, some sections are weed infested, flood prone, nutrient laden and contribute to local sedimentation. Private land owners have historically diverted natural flows in order to irrigate private land, which has reduced environmental flows and impacted aquatic life.

Town drainage falls in a generally southerly direction along the north/south streets, which divert water to stormwater pipes. One of these pipes outlets water to the river immediately east of the southern abutment of the Forbes Street bridge where distinct scour is visible. The river occasionally breaches its banks, with recent events seeing the water level reach about five vertical metres below the main street (June 2016).

Biodiversity

Vegetation Communities

The Bombala area comprises cleared open grazing land in the valleys to heavily forested ranges. The undulating slopes of the tablelands were once host to:

Transport

Bombala straddles the Monaro Highway (a 'B Class' highway classified as B23), which runs from Canberra to Cann River in Victoria. Other major roads include Mt Darragh Road which connects to Pambula and Merimbula on the NSW South Coast, linking Bombala with its nearest airport at Merimbula. Delegate Road, which intersects with the Monaro Highway about 1.5 kilometres south of Bombala, provides access to Delegate. As such it forms a potential route between Sydney, Canberra and Melbourne, however the route would mainly be suitable for tourists wanting to travel through the Monaro region as shorter routes exist. The region is frequently used by trucking companies, primarily in the timber harvesting industry.

The Goulburn to Bombala railway line, an extension of the Queenbeyven to Cooma line, reached Bombala in 1921 and operated until 1986. It was originally intended to run through to Victoria however this did not eventuate. During the 1970s, service was provided by a small bus, which ran on the tracks and took about 4 hours to cover the 100 kilometres between Cooma and Bombala. The former terminus station is located on the north side of town and the rail corridor is extant although disused.

Refer to Section 1.5 for further information regarding transport issues.

Town Layout

The Bombala town layout is reminiscent of some of the principles that define the layout of Canberra, however the designer and inspiration is unknown to the author at this time and the layout has been reported as dating to the 1860s, which predates the design for Canberra. This is of interest as at one stage Bombala was proposed (unsuccessfully) as one of the options for the site of the new capital city of Australia (refer Heritage). A triangular area defines a grid system running north west/ south east, centred on a central axis along Caveat Street, which aligns with the Endeavour Lookout (the nearest high point). Perpendicular to this runs the Bombala River and the town's main street, Maybe Street. Forbes Street however is the main north/south street due to its crossing of the Bombala River and connection to the Monaro Highway on the north side of town.

Pedestrian network

Apart from the core commercial area and riverside, there is a general lack of formed footpaths and formalised pedestrian crossings throughout the town. There is a continuous footpath along Maybe Street providing compliant access to shopfronts, as well as continuous footpaths along Forbes Street north to the bridge and footpaths along one side of Caveat Street. There appears to be no formal "zebra" crossings, although kerb ramps are provided in several locations. Most gradients appear to comply with those defined in AS 1428 for accessibility. A paved riverwalk trail network follows part of the Bombala River, forming a loop between the end of Young Street in the west and Stephen Street in the east. The trail links both sides of the river, connecting parklands to the town centre path network, however the width of the path is non-compliant as a shared path and there is a general lack of lighting. Poor connections exist for pedestrians needing to cross the Monaro Highway and Maharatta Street to the Museum Visitors Centre, railway lands and the northern Bombala residential area. At night there are no lit pathways between the caravan park and the town centre. These issues contribute to poor connectivity across the town, impacting locals and tourists.

the largest area of native grassland in Australia. There are fifty-five recorded vegetation communities within the Bombala Council Area, 14 being of conservator significance and 3 considered to be endangered nationally or in NSW. The threatening factors associated with the endangered ecological communities are clearing and wildfire.

The three native vegetation communities identified within the Bombala area are as follows:

- White Box 'Yellow Box' Blakely's Red Gum Woodland
- Natural Temperate Grasslands of the Southern Tablelands of NSW and the ACI
- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions

Native Flora Species

The following key native species are found in the local area:

Table 2-1: NATIVE FLORA SPECIES- BOMBALA

KEY COMMUNITY/KEY SPECIES	COMMON NAME
White Box 'Yellow Box' Blakely's Red Gum Woodland	Blakely's Red Gum
<i>Eucalyptus blakelyi</i>	Grey Box
<i>Eucalyptus microcarpa</i>	Yellow Box,
<i>Eucalyptus melliodora</i>	Red Ironbark,
<i>Eucalyptus sideroxylon</i>	Lightwood
<i>Acacia implexa</i>	Sweet Bursaria
<i>Bursaria spinosa</i>	Gorse Bitter-pea
<i>Daviesia ulicifolia</i>	Woolly Grevillea
<i>Grevillea lanigera</i>	Rosemary Grevillea
<i>Grevillea rosmarinifolia</i>	Everlastings
<i>Crotophaga spp</i>	Austral Rush
<i>Juncus australis</i>	Scarlet Coral-pea
<i>Kennedia prostrata</i>	Kangaroo Grass
<i>Thermopsis australis</i>	
Natural Temperate Grasslands	
<i>Hydrozperma carphoides</i>	Short Wallaby Grass
<i>Poa labillardieri</i>	Common Tussock Grass

KEY COMMUNITY / KEY SPECIES	COMMON NAME
<i>Stipa digeniculata</i>	Tall Speargrass
Montane Fleatlands and Swamps	
<i>Epacris microphylla</i>	Coral Heath
<i>Juncus planifolius</i>	Broad Leaf Rush
<i>Eucalyptus ovata</i>	Swamp Gum or Black Gum

Endangered Flora Species

Within the fifty five recorded vegetation communities, 1080 plant species (mostly native) have been listed, of which 5 species are considered to be nationally endangered, these include:

- *Gentiana baeuerleri* (Baeuerler's Gentian)
- *Grewillea acanthifolia* subsp. *paludosa* (Bog Grewillea)
- *Pomadouris cotoneaster* (Cotoneaster Pomadouris)
- *Cornia lawrenceana* var. *genensis* (Gancoa River Cornia)
- *Pultenaea parrisiiae* subsp. *parrisiiae* (Parris' Bush-pea)

Cultural Flora Species

Bombala consists of many streets with regularly spaced street trees, some dating back to the town's creation as well as more recent planting. The planting of street trees has been impacted by parking needs, particularly along Mayhew Street in the core commercial zone. Other trees are located along the riverbank and a significant variety of species can be found in the arboretum on the northern side of the river. The following key cultural flora species are found in the town:

Table 2.2: CULTURAL FLORA SPECIES - BOMBALA

FUNCTION / KEY SPECIES	COMMON NAME
Street trees	
<i>Fraxinus raywoodii</i>	Claret Ash
<i>Populus nigra</i>	Poplar
<i>Quercus robur</i>	Pedunculata Oak
Landscaped Areas	
<i>Rosa spp.</i>	Rose
<i>Rosmarinus officinalis</i>	Rosemary
<i>Cotoneaster simonsii</i>	Cotoneaster

Native Fauna

Due to clearing and fragmentation of existing vegetation, the majority of native fauna occurring within the area are most likely transitory individuals, which would rely upon a wider network of habitat across the region. Modified vegetation, often consisting of regrowth timber limits habitat potential. There are some rock outcrops in the local area and coarse woody debris is common in fields.

The area is known for possibly the largest population of Platypus in New South Wales and is promoted as 'Platypus Country'. Other native fauna species in the area include a variety of mammals, fish, amphibians, birds and reptiles, a small selection of which are identified below:

Table 2.3: NATIVE FAUNA SPECIES - BOMBALA

KEY SPECIES	COMMON NAME
Mammals	
<i>Wallabia bicolor</i>	Swamp Wallaby
<i>Vombatus ursinus</i>	Common Wombat
<i>Trichosurus vulpecula</i>	Common Brushtail Possum
<i>Pseudocheirus peregrinus</i>	Common Ringtail Possum
<i>Petaurus norfolcensis</i>	Squirrel Glider
<i>Perameles nasuta</i>	Long-nosed Bandicoot
<i>Ornithorynchus anatinus</i>	Platypus
Fish	
<i>Gobionomphus australis</i>	Striped Gudgeon
<i>Macquariea novemaculeata</i>	Australian Bass
<i>Salmo trutta</i>	Brown Trout
Amphibians	
<i>Crinia signifera</i>	Common Eastern Froglet
<i>Limnodynastes peronii</i>	Striped Marsh Frog
<i>Litoria raniformis</i>	Southern Bell Frog
Birds	
<i>Acanthorhynchus tenuirostris</i>	Eastern Spinebill
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo
<i>Cygnus atratus</i>	Black Swan
<i>Bizura lobata</i>	Musk Duck
<i>Dacalo novaeguineae</i>	Laughing Kookaburra
Reptiles	
<i>Tiliqua scincoides</i>	Common Blue-tongue
<i>Eulamprus quoyii</i>	Eastern Water-skink
<i>Pseudonaja textilis</i>	Eastern Brown Snake



Plate 2-2: Selection of native species from White Box / Yellow Box / Blakey's Red Gum Woodland

2.4 Urban design strategy

Objectives and guidelines - Bombala

Following determination of the strategic masterplan objectives in Section 1 of this report, a series of opportunities and constraints have been identified in order to generate responses for consideration in future stages.

Note: * Actions marked as such indicate work studies that may be impacted by a future heavy vehicle alternative route off the Monaro Highway and would be subject to further modification.

Table 2.5: URBAN DESIGN AND LANDSCAPE PRINCIPLES - BOMBALA

URBAN DESIGN OPPORTUNITIES AND CONSTRAINTS		STRATEGY GUIDELINES
C1	To ensure facilities and attractions are provided, are well located and utilised to their full potential so that they contribute to the future development of the town	
A	Visitor Information Centre and Museum services to access, is separated from the main street commercial zone and lacks amenities, parking and retail	<ol style="list-style-type: none"> 1 Provide right turn bay and signage for south bound vehicles* 2 Provide signage for north bound vehicles* 3 Explore ways to connect pathway to pedestrian and cycle network* 4 Construct new building. Visitor amenities must be provided and possibly cafe/ retail.
B	Railway Lands are under utilised and difficult to access	<ol style="list-style-type: none"> 1 Connect precinct to riverside pedestrian and cycle network with new highway crossing (possible shared path bridge or refuge crossing)* 2 Provide vehicular access from upgraded VICAM, which in turns provides vehicular access from highway 3 Refurbish prominent heritage items within the precinct (at least one station building) and incorporate into VICAM self guided tours 4 Continue to research and promote terminus station and remnant rail line 5 Reinststate a section of track for self propelled 'mandeans', seated buggys and 'rail bikes' as part of tourist activities 6 Consider railway museum or themed installation as part of tourist promotion.
C	Caravan Park is poorly connected to main street commercial zone and existing facilities detract from services that may be better utilised closer to main street commercial zone	<ol style="list-style-type: none"> 1 Create accessible pedestrian and cycle shared pathway from caravan administration building to town centre. Provide lighting along route for night time way finding and safety 2 Ensure caravan park facilities are only provided for use by caravan park guests i.e. parking and amenities. Other visitor types are to use upgraded facilities at swimming centre (and be encouraged to walk/ride into town centre)

URBAN DESIGN OPPORTUNITIES AND CONSTRAINTS		STRATEGY GUIDELINES
D	Parks and Playgrounds are under-utilised, lack clear focus and require upgrading to meet needs and standards	<ol style="list-style-type: none"> 1 A town-wide study of play space types, locations and demographics should be developed in order for council to effectively manage existing assets and understand future needs 2 The caravan park would benefit from a new, regional scale play space. The play space should cater to a variety of ages and abilities and feature local history, flora and fauna
E	Under-utilisation of river for recreation. Poor connection between rivers edge and upper banks	<ol style="list-style-type: none"> 1 Occasional flooding of the river has resulted in limited expenditure on facilities along the lower river banks, which creates zones of inactivity. A flood study should be undertaken in order to understand the extent of flooding that occurs and what type of facilities can be provided within these zones* 2 Provide a minimum 1.5 (preferably 2.5) metre wide pathway throughout riverside parklands and connect with town centre footpath network in additional locations to encourage greater use 3 Provide a new riverside 'clubhouse' building to facilitate kayaking facility on river, storage for boats and possibly riverfront dining.
F	Swimming pool toilet facilities and car park are under-utilised, lack signage, lighting are poorly connected to riverfront and main street commercial zone and require upgrading to meet standards and the potential for increased usage	<ol style="list-style-type: none"> 1 Swimming pool facilities and parking should be upgraded with refurbished amenities, illuminated car parking, lighting, expanded footpaths and lighting in order to create a 'hub' that encourages visitors to pause their journey and interact with the town's facilities and services
G	Main street commercial zone lacks identified gateways, amenities, wayfinding and promotion. Retail and provision of food for families is under-utilised, under-catered (particularly at night) and poorly sign posted. Inconsistent facades and sporadic landscaping contribute to an 'unmemorable' experience for tourists	<ol style="list-style-type: none"> 1 Refer Guideline 05.A.C
H	Heritage buildings and features not clearly identified or linked. Some buildings are vacant and in poor repair. Some land on the main street is vacant, under-utilised and visually poor.	<ol style="list-style-type: none"> 1 A heritage study should be undertaken in order to identify and catalogue existing heritage assets and understand maintenance requirements and adaptive reuse 2 A heritage loop trail should be defined and signposted and connected with town centre and riverside pathway networks 3 Vacant buildings should be assessed for new 'pop up' uses in association with rent reductions (perhaps assisted by council subsidies) to encourage start up businesses and encourage business ideas by eg. young people 4 Vacant land in the main street commercial zone must be utilised as it detracts from the overall main street presentation. Uses for this land could be temporary and developed in consultation with the community eg community gardens, coffee cart, food trucks.

	URBAN DESIGN OPPORTUNITIES AND CONSTRAINTS	STRATEGY GUIDELINES
B	Need to cater for caravans/ RVs and motorcycles in specific locations	<ul style="list-style-type: none"> 1 Further assessment is required to identify all possible parking locations and types. It is believed that current spatial provisions would allow these parking types 2 Provide a parking bay on Therry Street for larger vehicle types
C	On street parking in main street commercial zone is rear-to-kerb, which may discourage unfamiliar visitors from parking near shops	<ul style="list-style-type: none"> 1 A review of parking on the main street (core area) has expressed a desire to maintain angled (rear to kerb) parking in order to maximise parking numbers 2 Parking outside of the core area has been retained as angled parking. This can be drive-in or reverse-in as it is outside of the core commercial area and unlikely to be used by tourists
D	On street parking outside of main street commercial zones generally lacks line marking	<ul style="list-style-type: none"> 1 Line marking is recommended so that council can ascertain parking numbers more accurately and set better parameters for legal parking
E	Swimming pool parking is not clearly sign posted and lacks line marking for designated vehicle types and lighting	<ul style="list-style-type: none"> 1 Parking area to be updated and lined marked so that a more efficient parking layout will support the aquatic centre, riverside park and core area
C4	To reduce heavy vehicle movements through the town centres in order to improve pedestrian safety and increase amenity for local residents and tourists	
A	Heavy Vehicle Movements in main street prevents substantial pedestrian, bicycle and landscaping improvements	<ul style="list-style-type: none"> 1 Heavy vehicle alternative route to be provided linking Manarata Street and Bright Street via a new river crossing in order to divert heavy vehicle movements and enable improvements to pedestrian environment, parking and landscaping 2 A secondary diversion is to be provided along Therry Street and Caveat Street (north) to Maybe Street to provide access to a new rear lane service road associated with the proposed "Therry Square"
B	Classification of main street as a Highway (B Class) prevents substantial pedestrian and landscaping improvements.	<ul style="list-style-type: none"> 1 Further consultation with Roads and Maritime Services (Roads and Maritime) is required to ascertain what types of modification will be allowable. Submission of the strategic master plan is the first step in this process, the outcome of which will inform future master plan phases
C5	To ensure town centres exhibit a 'sense of arrival', are well presented and architecturally consistent	
A	Town gateways unclear/ unmarked. Lack of 'Sense of Arrival'	<ul style="list-style-type: none"> 1 Gateway signage at either end of Maybe Street, on the Monaco Highway and on Forbes Street should be provided in order to heighten the 'sense of arrival' once experience when entering the town. Gateway signage might include feature art work/ walling, banner arrays with current promotions and wayfinding signage/ maps
B	Main street facades inconsistent in appearance and "unmemorable"	<ul style="list-style-type: none"> 1 Architectural improvements should be made to buildings on the main street, particularly those offering tourist services eg. food and beverage. Improvements should take the form of facade improvements and under-awning lighting, improved retail signage and decorative additions. Improvements adopted should be made in such a manner so that architectural consistency is achieved that is memorable and include involvement from land and business owners and other members of the community

	URBAN DESIGN OPPORTUNITIES AND CONSTRAINTS	STRATEGY GUIDELINES
I	Shearer's monument not easily accessed or visible and lacks lighting	<ul style="list-style-type: none"> 1 Curtilage of culturally important artworks should be refurbished so that they are easily accessible, have good sight lines and are well lit. It may be desirable to relocate artworks if curtilage can not meet these requirements or if the artwork would work better elsewhere
J	Centraph located in roadway making it inaccessible/ dangerous to access and requires RMS approval for adjacent Highway road closure during Anzac Day ceremonies.	<ul style="list-style-type: none"> 1 Centraph should be maintained in its current location due to historical significance. Heavy vehicle diversions should be undertaken on a permanent basis in order to facilitate improvements of the pedestrian environment such as widened footpaths and raised thresholds
K	Limited dining/ fine dining experiences	<ul style="list-style-type: none"> 2 Explore opportunities for creation of high class restaurant (potentially with known chef) on main street ie at "The Mail Coach" or close to river (refer Guideline O1.E.3). Quality experience to ensure locals/ regional residents/ tourists make return visits
O2	To ensure that town centres are easy to navigate and utilise clear wayfinding logic and signage	
A	Poor wayfinding for tourists, strategy needed for location of signage and paths	<ul style="list-style-type: none"> 1 A signage and wayfinding strategy should be undertaken in order to understand fully the signage shortfalls and to develop a new signage strategy
B	Poor pedestrian connectivity between northern precincts (North Bombala, Railway Precinct, Tony Thornhill Park, Ginger Leigh Park, Visitors Centre, Caravan Park) to the main street commercial zone	<ul style="list-style-type: none"> 1 Reinforce links through railway precinct from Bombala north to riverside north. Investigate feasible highway crossings. 2 Create accessible pedestrian and cycle shared pathway from caravan administration building to town centre. Provide lighting along route for night time way finding and safety 3 Working in combination with the tourist 'hub' located at the swimming pool carpark, new and upgraded pathways/plaza into the town centre commercial zone should be provided in order to provide better opportunities for tourists to interact with the town's facilities and services. Provision of these pathways may require council land acquisition
C	Differing and potentially underwhelming experiences for north bound and south bound travellers, due to location and adequacy of facilities, amenities and signage	<ul style="list-style-type: none"> 1 A signage and wayfinding strategy should be undertaken in order to understand fully the signage shortfalls and to develop a new signage strategy
C	Lack of path lighting and clearly defined routes at night time.	<ul style="list-style-type: none"> 1 A lit shared path linking the caravan park to the town centre is required as a minimum
O3	To ensure that parking is appropriately located, sized and sign-posted	
A	Need for identification of parking needs/ types/ locations and development of town strategy	<ul style="list-style-type: none"> 1 A traffic study should be undertaken to understand whether existing parking provisions are adequate for current and future needs 2 New parking and modified existing parking locations have been indicated in the strategic master plan

URBAN DESIGN OPPORTUNITIES AND CONSTRAINTS	STRATEGY GUIDELINES
B Railway lands	<ol style="list-style-type: none"> Continue to research and promote terminus station and remnant rail line Reinststate a section of track for self propelled 'rail bikes' as part of tourist activities Consider railway museum or themed installation as part of tourist promotion.
C Town Square	<ol style="list-style-type: none"> Provide a new town square plaza between the main street commercial area and the riverside in order to create a destination for tourists and provide additional parking and other facilities. Connect the town square via new/upgraded pathways Provide new and upgraded 'pocket plazas' in the main street commercial zone to provide shaded seating, alfresco dining opportunities and opportunities for sculpture and way finding furniture
D Town amenities	<ol style="list-style-type: none"> Provide a new toilet facility in the main street commercial area, that is highly visible and architecturally designed, in order to encourage tourists to move through the town and to provide an additional facility for locals
08 To ensure utilities are rationalised and well planned in order to minimise their intrusion on to the public domain	
A Stormwater improvements, particularly at outlets to river (naturalisation/ filtration)	<ol style="list-style-type: none"> Naturalise stormwater outlets in order to reduce water velocities on entering river
E Explore opportunities for Water Sensitive Urban Design (WSUD) in refurbished streetscapes in order to capture stormwater for reuse in irrigation	<ol style="list-style-type: none"> WSUD interventions may include street trees with soaker pits, kerb blister rain gardens, awning water collection Surplus stormwater sent back to pit and pipe network following water quality improvement prior to entering river catchment.
C Stone lined gutters and drains an important heritage feature exhibiting poor condition in some locations	<ol style="list-style-type: none"> Stone gutters, drains and canals are to be retained and incorporated into a mapped heritage trail and restored where required
D Lighting	<ol style="list-style-type: none"> Ideally a new lighting system and network would be provided as part of the town centre rejuvenation, however this may be affected by budget, scope of new works and Roads and Maritime requirements for lighting a designated highway. In addition council should explore whether a private network would be required for the proposed works If kerbs are relocated then kerbside lighting must move with the kerb to maintain a consistent kerb offset in accordance with the relevant standard Undergrounding of power should be undertaken in order to reduce visual clutter of the streetscape.

URBAN DESIGN OPPORTUNITIES AND CONSTRAINTS	STRATEGY GUIDELINES
C Main street planting minimal, sporadic and in need of rejuvenation	<ol style="list-style-type: none"> Landscape beds and free planting should be improved either within existing beds or as part of a streetscape overhaul including parking redesign and a significant increase in landscape opportunities.
D Seating	<ol style="list-style-type: none"> Seating should be provided at a minimum spacing of 50 metres along all streets within the town centre. Seating should also be provided at pedestrian nodes (crossing points and junctions). Existing custom seating along Maybee Street should be retained and reused, but not replicated. A new palette of furniture should be selected from a well known supplier so that it is in regular supply, can be reordered and is cost-effective
E Footpath paving generally in good condition, visually appealing, demonstrates cultural input and generally liked by locals. Custom designed paving units difficult to manufacture due to materials sourcing combined with limited stockpile suggests there can only be limited expansion of this paving	<ol style="list-style-type: none"> A paving finish is to be designed that complements the existing main street paving, but in a way that allows the existing town centre paving to read as unique Paving units should be sourced from a well known manufacturer so that ongoing sourcing of the material is feasible and cost-effective.
06 To ensure that parklands are provided for the enjoyment, relaxation and recreation of local residents and tourists	
A Parkland footpaths	<ol style="list-style-type: none"> Provide paths that are of sufficient width, in good condition, accessible and well connected to the pedestrian and cycle pathway network Provide additional connections to the town centre wherever possible.
B Parkland facilities	<ol style="list-style-type: none"> Ensure that facilities are in good condition, particularly those likely to be frequented by tourists so that a positive experience ensues, thus increasing the likelihood of a repeat visit
07 To ensure regional facilities, attractors and neighbouring towns work together as a network for the betterment of the region as a whole	
A Playgrounds	<ol style="list-style-type: none"> Provide a new regional playground. Current location is indicated in the strategic master plan as being next to the caravan park, so that it is easily accessed by families staying at the caravan park. Provide a new accessible playground closer to the main street commercial zone and accessed via new pathway connections between the aquatic centre and the main street Ensure that facilities are in good condition, particularly those likely to be frequented by tourists so that a positive experience ensues thus, increasing the likelihood of a repeat visit

2.5 Urban design strategy

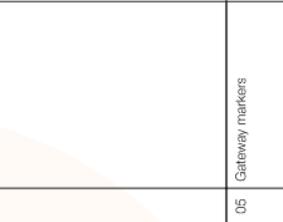
Design elements and materials - Bombala

Following determination of the opportunities, constraints and strategic guidelines, design elements and materials have been identified in relation to specific precincts of the strategic masterplan.

Note: Design actions, materials and product references are provided as a guide only and are subject to future assessment against design requirements, technical requirements and budget.

Table 7.6: DESIGN ELEMENTS AND MATERIALS - CORE COMMERCIAL AREA

PRECINCT/ ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
A VISITOR INFORMATION CENTRE AND MUSEUM			
C1 Visitors Information Centre and Museum	<ul style="list-style-type: none"> — Refurbish existing building and construct new wing (COMPLETED) 	<ul style="list-style-type: none"> — Opportunity for regionally notable architecture with strong relationship to town history — Use of salvaged materials. Facilities to include display area, cafe/kiosk, learning room, amenities/ baby change, bike rental/ racks, amenities — Community and display gardens using species from native vegetation communities and complementary cultural species considered inherent to the local area 	
C2 Pathways	<ul style="list-style-type: none"> — Construct pathways linking with Railway Lands and providing north/south pedestrian link for locals 	<ul style="list-style-type: none"> — Colour controlled and textured concrete, minimum 2 metres wide — Rustic stone paving to building surrounds — Rustic brick paving with subtle colour variation to core commercial area 	<p>Left: Granite paving to feature/ heritage areas. Right: Brick paving to building surrounds.</p> 
C3 Carpark	<ul style="list-style-type: none"> — Construct new sealed carpark with flagmarking and water sensitive urban design measures to capture runoff 	<ul style="list-style-type: none"> — Asphalt carpark surfaces, vegetated swales 	<p>Below: Carpark with vegetated swales collecting runoff</p> 

PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
04 Signage	<ul style="list-style-type: none"> Provide wayfinding and naming signage as part of an overall signage strategy 	<ul style="list-style-type: none"> Signage suite responding to historic signage in the area but constructed of modern robust materials incorporating consistent graphic standards and colours, feature lighting (for major signal) and replaceable elements 	<p>Left and centre: Example of existing signage. Right: Examples of new wayfinding signage</p> 
05 Gateway markers	<ul style="list-style-type: none"> Town entry marker to encourage visitation off highway 	<ul style="list-style-type: none"> Sculptural marker employing architectural or natural element, landmark and planting 	<p>Below: Examples of town entry sign by Darthonia Designs</p> 
E RAILWAY LANDS	<ul style="list-style-type: none"> Retain section of track for tourism uses. Restored or custom designed manually operated machinery 	<ul style="list-style-type: none"> 'Handcars', 'velocipedes' and 'rail bikes' 	<p>Left: 'Rail bikes', Bombala (Source: ABC, 2014). Centre: 'Rail bike', Lunt, Sweden (Source: SBS, 2015). Right: 'Rail' velocipede/hand car, USA (Source: Wikipedia)</p> 
03 'Terminus Station'	<ul style="list-style-type: none"> Restore station building as part of broader museum and visitors centre precinct 	<ul style="list-style-type: none"> Materials to match existing 	<p>Left: Bombala terminus station (Source: Google)</p> 

PRECINCT/ ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
C4 Pathways	<ul style="list-style-type: none"> Construct pathways linking sites within Railway Lands and providing north/south pedestrian link for locals 	<ul style="list-style-type: none"> Colour controlled and textured concrete, minimum 2 metres wide Rustic brick paving with subtle colour variation to building surrounds Restore timber decking to railway station 	 <p>Left: Brick paving to building surrounds. Centre: Coloured and textured concrete to footpaths generally.</p>
C5 Carpark	<ul style="list-style-type: none"> Construct new sealed carpark with: line-marking and water sensitive urban design measures to capture runoff 	<ul style="list-style-type: none"> Asphalt carpark surface, vegetated swales 	Refer A.03
C6 Signage	<ul style="list-style-type: none"> Provide wayfinding and naming signage as part of an overall signage strategy 	<ul style="list-style-type: none"> Signage suite responding to historic signage in the area but constructed of modern robust materials incorporating consistent graphic standards and colours, feature lighting for major signs) and replaceable elements 	 <p>Left and centre: Example of existing signage</p>
C TONY THORNELL PARK			
C1 Pathways	<ul style="list-style-type: none"> Construct pathways linking with Railway Lands and providing north/south pedestrian link for locals. Wayfinding signage 	<ul style="list-style-type: none"> Colour controlled and textured concrete, minimum 2 metres wide 	 <p>Below: Coloured and textured concrete to footpaths generally.</p>
C2 Lighting	<ul style="list-style-type: none"> Ensure lit route to appropriate level of compliance between caravan park and core commercial zone 	<ul style="list-style-type: none"> Post top LED lighting, powdercoated gunmetal grey. Timber components to be sustainably sourced 	 <p>Below: Range of bespoke industrial heritage lighting for pedestrian paths by Aubilam (Source http://www.matches.co.uk/commercial/lighting/light-brackets).</p>
C3 Landscaping	<ul style="list-style-type: none"> Refresh existing landscaped beds, and landscaping or turfed areas to reduce turf maintenance and to encourage use of lit pathways at night 	<ul style="list-style-type: none"> Plant species from native vegetation communities and complementary cultural species considered inherent to the local area 	 <p>Below: Native species from White Box/ Yellow Box/ Blakey's Red Gum Woodland</p>

PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
04	<p>Fencing along road corridor</p> <ul style="list-style-type: none"> — Fencing along road corridor 	<p>Fencing along road corridor likely to be determined by Roads and Maritime, comprising chain link mesh. Council to request more appropriate rural type fencing ie. timber post and rail with black mesh infill</p>	<p>Possible fence options comprising post and rail fence (stair ed black) with black PVC coated chain-link mesh</p> 
05	<p>Picnic facilities</p> <ul style="list-style-type: none"> — Ensure adequate facilities in park ie. BBQ, amenities, shade. Consider upgrading/replacing shade structures and BBQs 	<p>Modular, easily 'repeatable' shelters and BBQ units. Customised colour selections to ensure consistency with overall town centre palette</p>	<p>'MOD' shelters (Source: http://zmod.com.au/baachag). Centre: Christiania modular electric BBQ unit (Source: http://christianiapatisale.com.au/portfolio/modular-trolex/). Right: Moodle Z Piazza table</p> 
C. GINGER LEIGH PARK			
01	<p>Playground</p> <ul style="list-style-type: none"> — Provide regional scale, accessible and bespoke playground that interprets the regions history and caters to a variety of children's ages and abilities 	<p>Combination of proprietary and custom play equipment, landform and natural elements with carefully selected proprietary equipment, sculpture and water play</p>	<p>Range of playgrounds involving nature play, landform and water play</p> 
02	<p>Picnic facilities</p> <ul style="list-style-type: none"> — Ensure adequate facilities in park ie. BBQ, amenities, shade. Consider upgrading/replacing shade structures and BBQs 	<p>Modular, easily 'repeatable' shelters and BBQ units. Customised colour selections to ensure consistency with overall riverside palette</p>	Refer C.05
03	<p>Pathways</p> <ul style="list-style-type: none"> — Construct pathways linking caravan park administration building and playground and providing north/south pedestrian link for locals and tourists to town centre 	<p>Colour controlled and textured concrete, minimum 2 metres wide. Wayfinding signage</p>	Refer C.01
04	<p>Lighting</p> <ul style="list-style-type: none"> — Ensure lit route to appropriate level of compliance between caravan park and core commercial zone 	<p>Post top LED lighting, powdercoated to match local government or town colours. Use under-awning lighting where required to maintain compliance</p>	Refer C.02
05	<p>Landscaping</p> <ul style="list-style-type: none"> — Renew existing landscaped beds and landscaping of turf ed areas to reduce turf maintenance and to encourage use of lit pathways at night 	<p>Plant species from native vegetation communities and complementary cultural species considered inherent to the local area</p>	Refer C.03

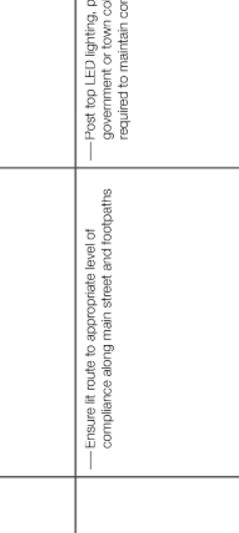
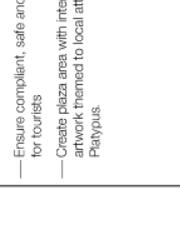
PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
C6 Heritage elements	<ul style="list-style-type: none"> Restoration of locomotive sculptures 	<ul style="list-style-type: none"> Paint colours to suit heritage theme, rust removal. Factory painting off-site preferable to ensure long lasting and highly detailed outcome 	 <p>Below: Restored locomotive sculpture in Delegate</p>
C7 Fencing	<ul style="list-style-type: none"> Fencing along road corridor 	<ul style="list-style-type: none"> Fencing likely to be determined by Roads and Maritime, comprising chain link mesh. Council to request more appropriate rural type fencing ie. timber post and rail with black mesh infill 	<p>Refer C.04</p>
C8 Restored amenities block	<ul style="list-style-type: none"> Ensure compliant, safe and clean amenities for tourists 	<ul style="list-style-type: none"> Clean modern facilities fitout 	 <p>Below: Existing amenities block</p>
E RIVERSIDE SOUTH/EAST C1 New river clubhouse	<ul style="list-style-type: none"> Construct new facility 	<ul style="list-style-type: none"> Opportunity for regionally notable architecture with strong relationship to river and watercraft function 	<p>Top: Images from Kayak Club in Celje, Slovenia by Grij Kikelj Arhitekti (Source: http://www.archdaily.com/572695/kayak-club-grij-kikelj-architekti). Bottom: WMS Boatouse at Clark Park, Chicago by Studio Gang (Source: http://www.archdaily.com/465715/wms-boatouse-at-clark-park-studio-gang-architects)</p> 

PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
C2 Road and carpark	<ul style="list-style-type: none"> Construct new sealed carpark with water sensitive urban design measures to capture runoff 	<ul style="list-style-type: none"> Asphalt carpark surface, vegetated swales 	Refer A.03
C3 Pathways	<ul style="list-style-type: none"> Construct pathways and crossings linking with existing riverside and town centre network 	<ul style="list-style-type: none"> Colour controlled and textured concrete, minimum 2 metres wide. Wayfinding signage 	Refer C.01
C4 Landscaping	<ul style="list-style-type: none"> Renew existing landscaped beds, landscaping of turfed areas and restoration of denuded river banks 	<ul style="list-style-type: none"> Plant species from native vegetation communities particularly riparian species 	Below: Native groundcover and grass species 
F SWIMMING CENTRE CARPARK			
C5 Carpark	<ul style="list-style-type: none"> Construct new sealed carpark with firemarking and water sensitive urban design measures to capture runoff 	<ul style="list-style-type: none"> Asphalt carpark surface, vegetated swales 	Refer A.03
C3 Pathways	<ul style="list-style-type: none"> Construct pathways and crossings linking with existing riverside and town centre network 	<ul style="list-style-type: none"> Colour controlled and textured concrete, minimum 2 metres wide. Wayfinding signage 	Refer C.01
C4 Landscaping	<ul style="list-style-type: none"> Renew existing landscaped beds, landscaping of turfed areas and restoration of denuded river banks and stormwater outlet 	<ul style="list-style-type: none"> Plant species from native vegetation communities particularly riparian species 	Refer E.04
C4 Lighting	<ul style="list-style-type: none"> Ensure ill route to appropriate level of compliance between bridge and core commercial zone 	<ul style="list-style-type: none"> Post top LED lighting, powdercoated gunmetal grey. Timber components to be sustainably sourced. 	Refer C.02
G SWIMMING CENTRE			
C7 New gymnasium	<ul style="list-style-type: none"> Construct new building 	<ul style="list-style-type: none"> Opportunity for regionally notable architecture with strong relationship to river Clean modern, bright, airy, floating architecture 	Left: Rivergarden Condo gymnasium in Melbourne. Centre: WMS Boathouse at Clerk Park, Chicago by Studio Gang (Source http://www.archdaily.com/465715/wms-boathouse-at-clerk-park-studio-gang-architects). Right: Floating "Cloud Pavilion" on Shanghai's Waterfront by Schmidt Hammer Lassen Architects (Source http://www.archdaily.com/793594/schmidt-hammer-lassen-architects-design-floating-cloud-pavilion-on-shanghai-waterfront) 

PRECINGIT/ ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
C2	Refurbished office and amenities block — Ensure compliant, safe and clean amenities for tourists	— Clean modern facilities fitout. New building signage	Below: Existing amenities block 
H CAVEAT STREET NORTH			
C1	Road linemarking — Linemarking of existing road surface in order to improve road efficiency and to identify surplus road surface that could be converted to landscaped area or pedestrianise	— Linemarking	Below: Example of on-street linemarking 
C2	On-street car parking — Linemarked carpark on existing road surface with water sensitive urban design measures to capture runoff	— Asphalt carpark surface, planted blisters	Below: Onstreet parking lane with planted blisters 
C3	Pathways — Construct pathways and crossings linking with existing riverside and town centre network. Reduce road width through construction of path next to canal	— Colour controlled and textured concrete, minimum 2 metres wide. Wayfinding signage	Refer C.01
C4	Landscaping — Renew existing landscaped beds, landscaping of turfed areas and restoration of denuded stormwater canal edges	— Plant species from native vegetation communities particularly riparian species	Refer E.04
I RIVERSIDE PEDESTRIAN LINK & TOWN SQUARE			
C1	Lighting — Ensure lit route to appropriate level of compliance between bridge and core commercial zone	— Post top LED lighting, powdercoated gunmetal grey. Timber components to be sustainably sourced	Refer C.02
C2	Pathways — Construct pathways and crossings linking with existing riverside and town centre network. Reduce road width through construction of path next to canal	— Colour controlled and textured concrete, minimum 2 metres wide. Wayfinding signage — Rustic brick paving with subtle colour variation to building surrounds	Refer B.04
C3	Landscaping — Renew existing landscaped beds, landscaping of turfed areas and restoration of denuded stormwater canal edges	— Plant species from native vegetation communities particularly riparian species	Refer E.04

BOMBALA AND DELEGATE TOWN CENTRE
INTRODUCTION AND OVERVIEW

PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
04 Plaza	<ul style="list-style-type: none"> Provide a new public square incorporating acquisition of private land as is necessary to provide public car parking, supply service vehicle access to retail premises, at facilities playground, 2 short term heavy vehicle parking bays and incorporating pedestrian access via the Butcher's Lane and the Forbes Street footprint. 	<ul style="list-style-type: none"> Combination rustic stone and brick paving 	Refer A.02
J MAIN STREET AND NEW AMENITIES PLAZA			
01 Hoard reconstruction	<ul style="list-style-type: none"> Realignment of kerbs and drainage inlets 	<ul style="list-style-type: none"> Colour controlled kerbs and paved kerb ramps, ductile iron stormwater pits 	<p>Below: town centre kerb reconstruction including upgraded kerbs, paving, stormwater pits, kerb ramps and landscaping</p> 
02 Road linemarking	<ul style="list-style-type: none"> Linemarking of existing road surface in order to improve road efficiency and to identify surplus road surface that could be converted to landscaped area or pedestrianised 	<ul style="list-style-type: none"> Linemarking 	Refer H.01
03 On-street car parking	<ul style="list-style-type: none"> Linemarked carpark on existing road surface with water sensitive urban design measures to capture runoff 	<ul style="list-style-type: none"> Asphalt carpark surface 	Refer H.02
04 Pathways	<ul style="list-style-type: none"> Footpath widening, alfresco dining area and new crossings 	<ul style="list-style-type: none"> Rustic stone paving to building surrounds Rustic brick paving with subtle colour variation to core commercial area. Wayfinding signage 	Refer A.02
05 Landscaping	<ul style="list-style-type: none"> Renew existing landscaped beds, landscaping of new garden areas, street tree replacement 	<ul style="list-style-type: none"> Plant species from native vegetation communities and complementary cultural species considered inherent to the local area and species suitable for roadside planting including rain gardens 	Refer C.03/ E.04

PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
C6 Furniture	<ul style="list-style-type: none"> New seating, bike racks, bin enclosures, wayfinding signage, banner poles, water bottle refill stations, wayfinding signage. Retention of existing custom designed benches 	<ul style="list-style-type: none"> Proprietary furniture range, colour coordinated to town colour range 	 <p>Top: Left: Erlau 'Topsit' seat. Centre: SFA timber clad recycling enclosure. Right: Banner system for intrack. Bottom: Left: Signage types. Centre: Bicycle hoops. Right: Water refill station</p>
C7 Lighting	<ul style="list-style-type: none"> Ensure lit route to appropriate level of compliance along main street and footpaths 	<ul style="list-style-type: none"> Post top LED lighting, powdercoated to match local government or town colours. Use under-awning lighting where required to maintain compliance 	 <p>Below: Range of bespoke industrial heritage lighting for main street and footpaths by Aubinham (Source: http://www.marshalls.co.uk/commercial/lighting/light-brackets/).</p>
C8 New amenities plaza	<ul style="list-style-type: none"> Create new amenities facility Ensure compliant, safe and clean amenities for tourists Create plaza area with interpretive/interactive artwork themed to local attraction/heritage eg Platypus. 	<ul style="list-style-type: none"> Clean modern facilities fitout of existing building or iconic new structure that interprets rural vernacular Attractive plaza to capture attention of passing tourists - link amenities to tourism opportunities via information kiosk Encourage hotels/pubs to make amenities available to pedestrians and provide improved access where possible. 	 <p>Below: New amenities block architecture (Source: Refer J.0'</p>
K C1 Road reconstructor	<ul style="list-style-type: none"> Realignment of kerbs and drainage inlets 	<ul style="list-style-type: none"> Colour controlled kerbs and paved kerb ramps, ductile iron stormwater pits 	Refer J.0'

PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER REFERENCE
C2	Road linemarking — Linemarking of existing road surface in order to improve road efficiency and to identify surplus road surface that could be converted to landscaped area or pedestrianised	— Linemarking	Refer H.01
C3	On-street car parking — Unmarked carpark on existing road surface with water sensitive urban design measures to capture runoff	— Asphalt carpark surface	Refer H.02
C4	Pathways — Footpath widening, alfresco dining area and new crossings	— Rustic stone paving to building surrounds — Rustic brick paving with subtle colour variation to core commercial areas. Wayfinding signage	Refer A.02
C5	Landscaping — Renew existing landscaped beds, landscaping of new garden areas, street tree replacement	— Plant species from native vegetation communities and complementary cultural species considered inherent to the local area and species suitable for roadside planting including rain gardens	Refer C.03/ E.04
C6	Furniture — New seating, bike racks, bin enclosures, wayfinding signage, banner poles, water bottle refill stations. Retention of existing custom designed benches	— Proprietary furniture range	Refer J.06
C7	Lighting — Ensure ill route to appropriate level of compliance along main street and footpaths	— Post top LED lighting, powdercoated to match local government or town colours. Use under-awning lighting where required to maintain compliance	Refer J.07
L	MAIN STREET WEST		
C1	Gateway markers — Town entry marker to encourage visitation of highway	— Sculptural marker employing architectural or natural element, landform and planting	Refer H.01
C2	Road linemarking — Linemarking of existing road surface in order to improve road efficiency and to identify surplus road surface that could be converted to landscaped area or pedestrianised	— Linemarking	Refer H.01
C3	On-street car parking — Unmarked carpark on existing road surface with water sensitive urban design measures to capture runoff	— Asphalt carpark surface	Refer H.02
C4	Pathways — Footpath widening, alfresco dining area and new crossings	— Rustic stone paving to building surrounds — Rustic brick paving with subtle colour variation to core commercial areas. Wayfinding signage	Refer A.02
C5	Landscaping — Renew existing landscaped beds, landscaping of new garden areas, street tree replacement	— Plant species from native vegetation communities and complementary cultural species considered inherent to the local area and species suitable for roadside planting including rain gardens	Refer C.03/ E.04
M	RIVERSIDE SOUTH WEST		
C1	Recreation — Construction of a new weir 2m higher than existing will create a usable water body (subject to detailed hydrologic and environmental assessment by others) for recreation purposes eg. canoe club, mode boats, paddle boats, platypus viewing	— High quality finish subject to engineering advice	
C2	Pathways — Improve footpath connections linking riverside with main street	— Colour controlled and textured concrete, minimum 2 metres wide. Wayfinding signage	Refer B.04

BOMBALA AND DELEGATE TOWN CENTRE

INJECTION AND OVERVIEW

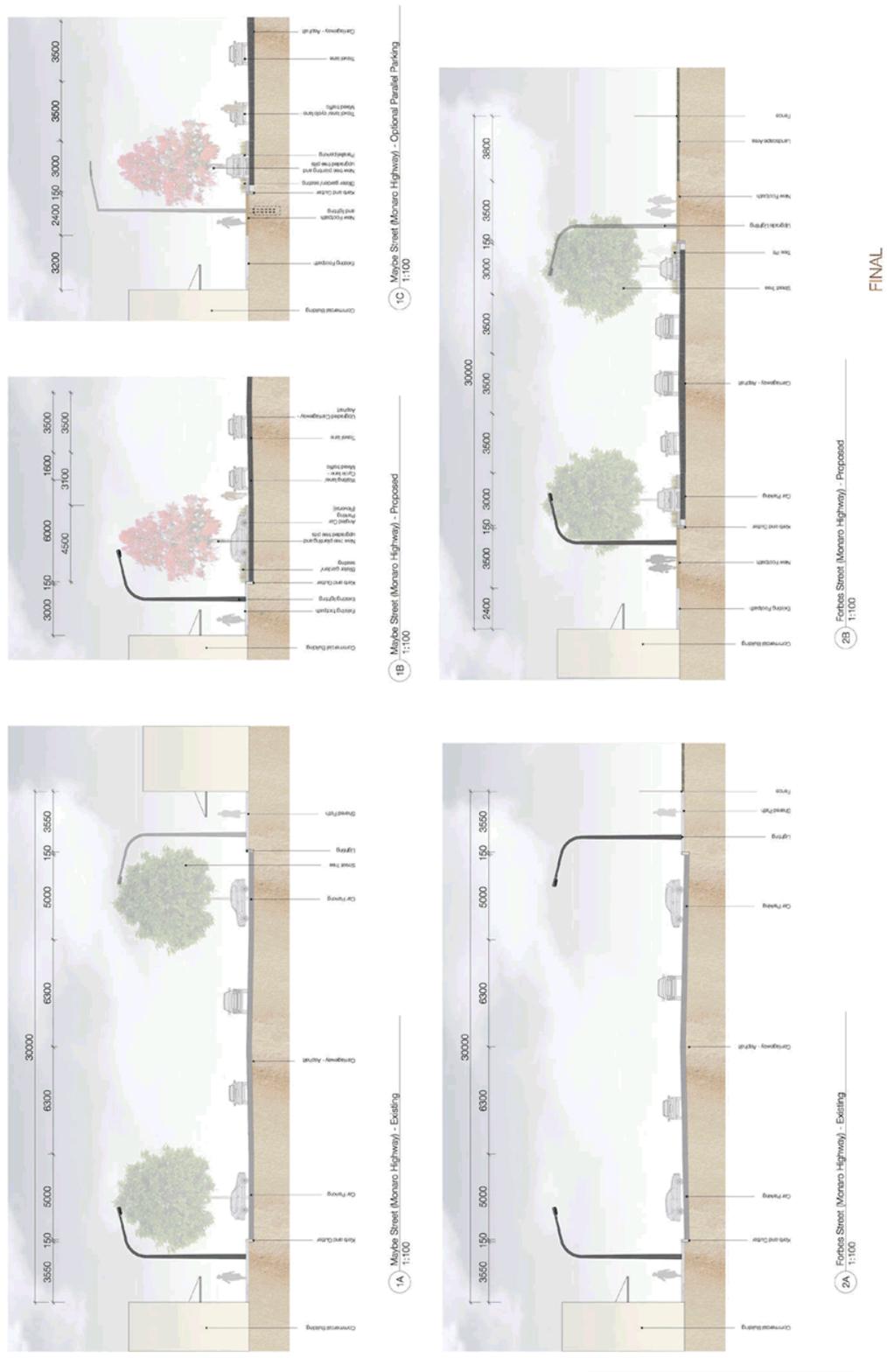
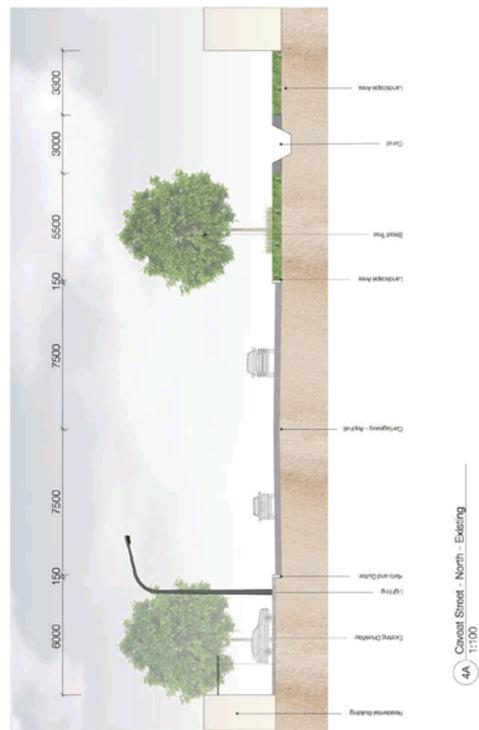
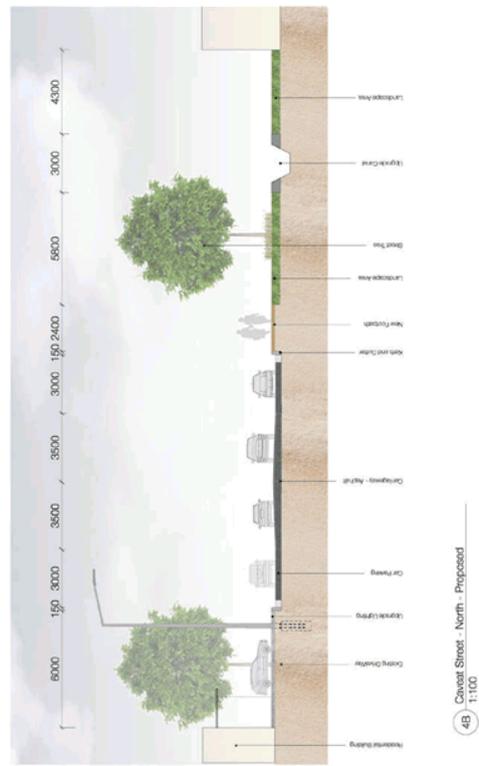
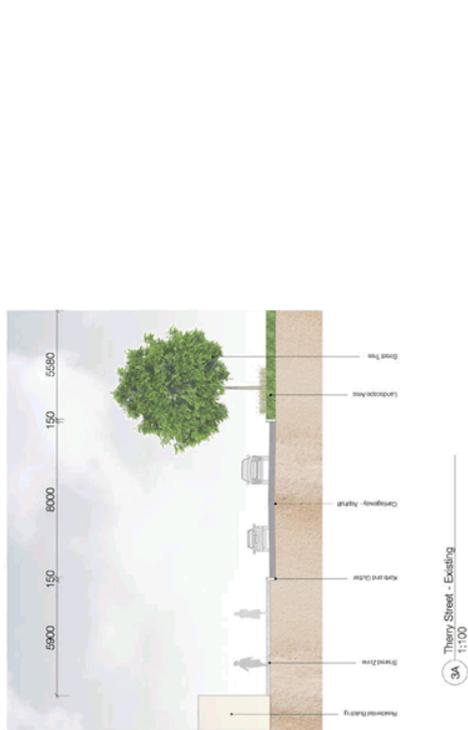
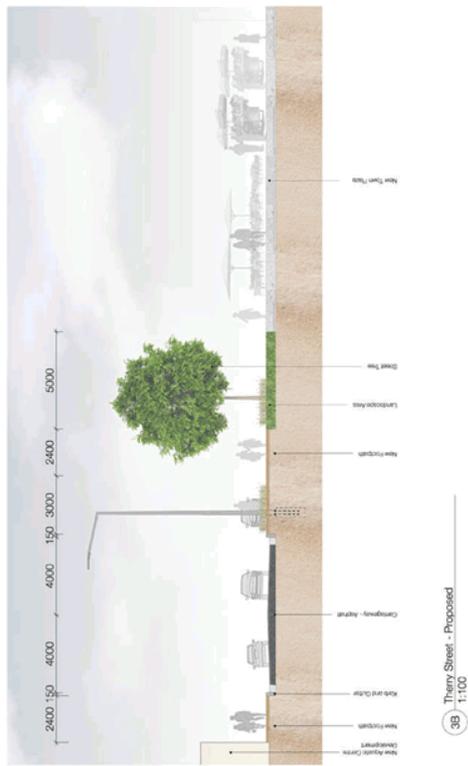


Figure 2-5: Drawing SK06: Typical Sections Bombala - Maybe Street/ Monaro Highway

BOMBALA AND DELEGATE TOWN CENTRE

INTRODUCTION AND OVERVIEW



FINAL

Figure 2-7: Drawing SK07: Typical Sections Bombala - Therry Street and Caveat Street



SINAI ERIC MASHIHLAN HEI-KHI

3 Delegate

3.1 Location

Delegate lies a further 37 km to the south west of Bombala, close to the Victorian state border and smaller towns that are located in the northern section of the East Gippsland Shire of Victoria. Nearby townships include Craigie, a logging area about 26 km to the south west via Delegate Road and Craigie Road, Delegate River, a small settlement 13 km to the west via Delegate Road and Bondoc, a Victorian logging area 17 km to the south via Haydens Bog Road.

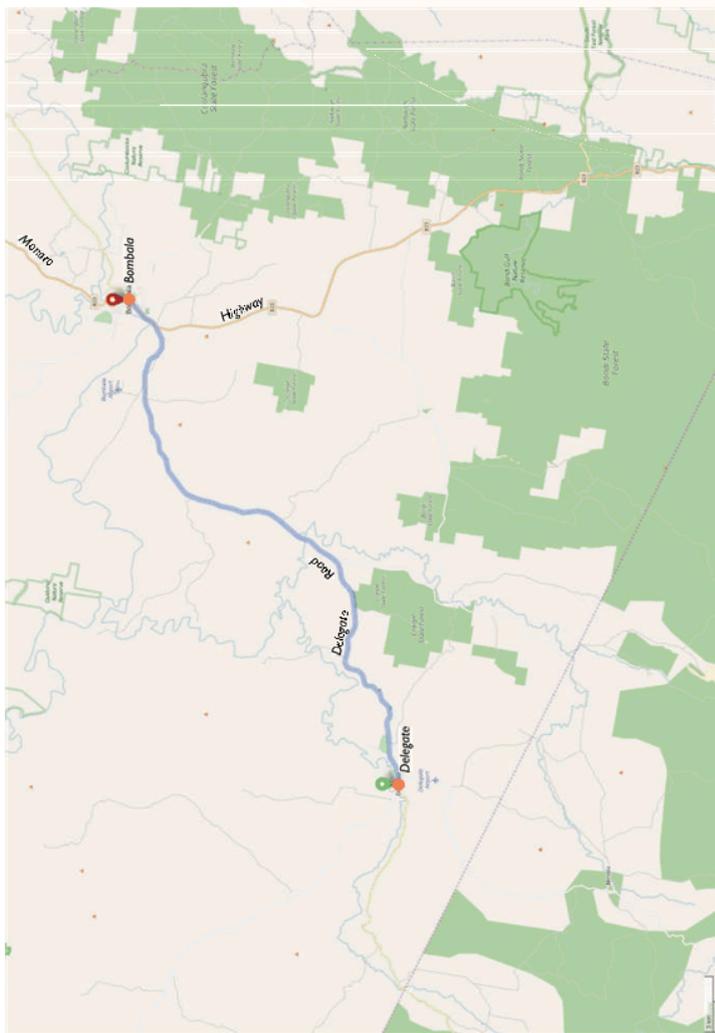


Figure 3-1: Location map (Open Data Commons Open Database License)

Plate 3-1: Intersection of Bombala Street and Victoria Parade at the western end of the town centre (previous page)

3.2 Cultural Context

Heritage

Aboriginal heritage

The Bombala area was inhabited by the Ngeigo Aboriginal people prior to the first European settlers arriving in the 1830s. The land including and surrounding the town is considered culturally important to Aboriginal people due to the subtly undulating, vegetated terrain with good access to the fresh water of the Delegate River. The general area would contain sites of aboriginal significance. The place name, Delegate, could have been derived from an aboriginal word meaning "high mountains" or "one big hill", which is likely to refer to Delegate Hill south of the town and accessed via Haydens Bog Road.

Delegate is a known stop along the Burrobin Way, a walking track between Mount Kozucsko and Twofold Bay (Eden). The route is now managed and promoted by the Eden Local Aboriginal Land Council and forms an important part of Delegate's tourism plans for the future.

Non-aboriginal heritage

The Delegate area was settled by Europeans in the 1820s when Charles Campbell (son of Robert Campbell, who established a trading business in Sydney about 1798) directed that "some of the shepherds move their animals towards the areas of the winter snows". They trekked, probably via Cooma, and settled a large number of stock in an area where they formed a new station, which was later named Delegate. In 1870 a petition was forwarded to the Council of Education to request educational facilities at Craigie, Corowong and Delegate. In 1871 Delegate Public School was opened. Other pronunciations and historical spellings of Delegate include Deilgat and Dziliket.

Several places of worship have been erected in Delegate, the first being the "Delgat" chapel. It was a slab building thatched with grass and stood on the bank of Church Creek and was of the Church of England denomination. The site is identified in the Delegate Cemetery and marked by a shelter built during the 1988 Bicentennial Year. In October 1880 St Philip's Anglican Church in Heyden Street was licensed and consecrated in 1885. This was followed by several other churches and denominations, including a covenant for nuns and religious school houses.

The Snowy River March which commenced from Delegate in 1916 went via Bombala to Goulburn. Also known as the "Men from Snowy River" recruiting march, the march was a means of enticing volunteers into the army to fight in the First World War. A cenotaph reflecting on the march and recalling names of the fallen can be found at the junction of Bombala Street and Victoria Parade, whilst another memorial to the Anzacs can be found at the Memorial Park gates on Bombala Street. The local School of Arts building has a museum that displays the history of the area and is itself an important ceremonial place. Honour Rolls in the main part of the building record the names of locals who served in both wars as well as a memorial stone at the front of the building commemorating the original Men from Snowy River March in 1916. The building also served as a picture theatre for many years.

3.3 Landscape Context

Geology

As detailed geological and geotechnical studies have not been undertaken as part of the strategic masterplan, in general, the geology of the Delegate area is considered to be similar to that of Bombala. For further information refer to Section 2.3 of this report.

Climatic factors

Climate Data from the Bureau of Meteorology reveals that Delegate shares similar climate characteristics to Bombala. With Delegate lying slightly further inland and closer to the ranges, it is possible that temperature differences would be slightly more extreme with slightly higher rainfall. For further information refer to Section 2.3 of this report.

Landform and topography

Delegate is situated about 750 m a.s.l. some 50 metres higher than Bombala. The surrounding area consists of relatively subtle undulations and flat plains. Contrasting this is Delegate Hill/Mount Delegate, which is located about 13 km south of the town and steeply rises 400 m to 1,276 m a.s.l. Delegate Hill is a well known local landmark with Aboriginal significance. Geologically and visually it is distinct from the surrounding area.

Hydrology and drainage

The town falls within the Delegate River Catchment, which flows to the Bombala River. For further information refer to Section 2.3 of this report. An overland flow path runs in a northerly direction across Bombala Street (where it is partially formalised into a canal), before linking with another flow path running in a westerly direction along a natural gully where it releases to the river.

Biodiversity

Native Flora Species

As detailed vegetation studies have not been undertaken as part of the strategic masterplan, in general, the native vegetation and endangered species of the Delegate area are considered to be similar to that of Bombala. For further information refer to Section 2.3 of this report.

Cultural Flora Species

Overall, Delegate is lacking in consistent street tree planting, corresponding with the general lack of formed road edges and footpaths. An impressive allee of street trees is experienced by the motorist on approach to the town from the north east along Delegate Road as far as Heydon Road. However this not maintained along Bombala Street through the town centre, with only sporadically located trees (some in islands). A solitary tree is located near the junction with Victoria Parade at the western end of the town, however this tree has had unsympathetic pruning work undertaken, which may impact future growth. This tree forms an important view termination when viewing down the main street and is associated with the war monument. A collection of trees is located in the Memorial Park on Bombala Street. Significant mature Eucalypt street trees exist along a small section of Victoria Parade near the intersection with Craigie Street, however the trees are very close to the road edge. Refer Table 3-1 for a selection of key cultural species located in the town.

Demographics

Delegate was reported to have a population of 452 in the 2011 census, which almost doubled since the 2001 census. Children aged 0 – 14 years made up 14.2% of the population and people aged 65 years and over made up 21.3% of the population. The median age is 51 and although there has been a population increase recorded, the population in Delegate is likely to continue to age, with younger people and families living in larger towns and cities as their needs are generally not well serviced in smaller towns.

Land Uses

Current land uses include large-lot rural-residential properties and a variety of commercial businesses on Bombala Street. Timber and grazing land uses dominate the surrounding area. Several church properties, schools, parks and a showground exist in the town. A golf course and cemetery are located to the east of the town.

Utilities

Major utilities include electrical services managed by Essential Energy, comprising a primarily aerial power network tied to poles throughout the town. Water, Telstra and sewer utilities are also located within the proposal area. Gas services are managed by APA Group.

Transport

Delegate is located on Delegate Road, which intersects with the Monaro Highway about 1.5 kilometres south of Bombala. Heading south, Delegate Road continues on to Bonang and the Bonang Highway, which continues on to Orbost some 126 km away on the Princes Highway. As such it forms a potential route between Sydney, Canberra and Melbourne, however the route is primarily suitable for tourists wanting to travel through the Monaro Region as shorter routes exist. The region is frequently used by trucking companies, primarily in the timber harvesting industry. Refer to Section 1.5 for further information regarding transport issues.

Town Layout

The Delegate town layout comprises an approximate north/south grid centred on the opposing alignments of Bombala Street (Delegate Road) and Church Street. The northern boundary of the town is formed by the Delegate River, which wraps around the western and northern edges. To the south, Victoria Parade defines another important alignment which impacts development of the town. Its alignment is skewed and forms an awkward angled junction with Delegate Road. The alignment is possibly based on an old stock route following cadastral boundaries, which is signposted near the intersection with Heydens Bog Road.

Footpath network

There is a general lack of formed footpaths and formalised pedestrian crossings throughout the town. Two small sections of footpath can be found on Bombala Street, one short length associated with the Delegate Cante and the other with Delegate Hotel. A recently installed footpath links the public school on Campbell Street, however no formal crossings are provided and gradients would exceed those defined in AS14:28 for accessibility in some locations. A riverwalk trail follows part of the Delegate River, however is not continuous and is unformed. The main sections of trail connect the western end of William Street with the western end of the Orr Street road reserve, but does not connect up to Orr Street. The trail continues as a foot worn trail around the edge of the river to the northern end of the Church Street road reserve. A footworn trail connects further west to Coorwong Road near the bridge, however there is no access to the river in this location. Other trails exist near the river at the Bill Jeffrey's Memorial Park, however these are not directly connected to the river trail network.

Table 3-1: CULTURAL FLORA SPECIES - BOMBALA

FUNCTION/KEY SPECIES	COMMON NAME
Street trees	
<i>Ulmus glabra</i>	Wych Elm
<i>Eucalyptus</i> spp.	Eucalypt
<i>Parrotia persica</i>	Persian Ironwood
Landscaped Areas	
<i>Nandina Domestica</i>	Nandina
<i>Agapanthus</i> spp.	Agapanthus
<i>Lavandulus</i> spp.	Lavender

Native Fauna

As detailed fauna studies have not been undertaken as part of the strategic masterplan, in general, the native fauna of the Delegate area are considered to be similar to that of Bombala. For further information refer to Section 2.3 of this report. Similarly to Bombala, Platypus are considered reasonably common in the area and can be viewed in their natural habitat in Delegate River.



Figure 3-2: Drawing SK01: Site Analysis - Delegate

3.4 Strategy guidelines

Urban design guidelines - Delegate

Following determination of the strategic masterplan objectives, a series of urban design constraints have been identified in order to generate responses for consideration in future stages.

Table 3-2: URBAN DESIGN AND LANDSCAPE PRINCIPLES - DELEGATE

	URBAN AND LANDSCAPE DESIGN CONSTRAINTS	STRATEGY GUIDELINES
01	To ensure facilities and attractors are provided, are well located and utilised to their full potential so that they contribute to the future development of the town	
A	Visitor Information Centre and Bundian Way Galley is well located on Bombala Street next to Delegate Cafe and close to Delegate Hotel, however footpaths do not connect across adjacent streets and only one sign located off street indicates its location	<ul style="list-style-type: none"> Provide signage for motorists Provide formalised crossings, kerb ramps and additional footpaths to connect to pedestrian network.
B	Delegate Cafe is a known local landmark and is well located on Bombala Street next to the Bundian Way Galley and close to Delegate Hotel, however footpaths do not connect across adjacent streets and sufficient footpath width is not available for alfresco dining	<ul style="list-style-type: none"> Provide signage for motorists Provide widened footpaths to allow alfresco dining next to the cafe. This will improve the cafe dining experience and 'advertise' the location of the cafe to passing traffic and therefore improve visitation
C	Caravan Park in Bill Jefferys Park is poorly connected to main street commercial zone and existing facilities detract from services that may be better utilised closer to main street commercial zone	<ul style="list-style-type: none"> Existing road into park (Topping Street) is unsealed and access would be improved for a wider variety of user types if sealed. This would also reduce dust and sedimentation of the river in this area Create accessible (where possible) pedestrian and cycle shared pathway from caravan amenities building to town centre. Provide lighting along route for night time way finding and safety Ensure caravan park facilities are only provided for use by caravan park guests ie. parking and amenities. Other visitor types are to use new facilities in the town centre (and be encouraged to walk/ride into town centre)
C	Parks and Playgrounds are inadequate	<ul style="list-style-type: none"> The town centre would benefit from a new park and playground closer to the core commercial zone The caravan park playground requires only minor improvements in consideration of current and expected caravan park usage Bill Jefferys Park (riverside) is poorly connected to Memorial Park and the town centre.

	URBAN AND LANDSCAPE DESIGN CONSTRAINTS	STRATEGY GUIDELINES
E	Under-utilisation of river for recreation. Poor connection between rivers edge and upper banks	<ul style="list-style-type: none"> Provide a minimum 1.5 (preferably 2.5) metre wide continuous pathway along the river between Corowong Street (Playzous Wek) and Bill Jeffrey's Park (recreation River Wek) and connect with town centre via new footpath network to provide better function and encourage greater use. This may require a new bridge or part property acquisition along the northern section between Church Street and Hayden Street due to proximity of private property
F	The existing tennis courts are the only dedicated sporting activity in the town centre. The courts are not easily accessible, lack signage, amenities and are poorly connected to the main street commercial zone, which reduces the likelihood of usage by tourists	<ul style="list-style-type: none"> Tennis court facilities and parking should be upgraded with refurbished amenities, linemarked car parking, expanded footpaths and lighting in order to create a 'hub' that encourages visitors to extend their stay and interact with the town's facilities and services
G	Main street commercial zone lacks identified gateways, amenities, wayfinding and promotion. Retail and provision of food for families is under-utilised, under-catered (particularly at night) and poorly sign posted. Inconsistent facades and absent landscaping contribute to an "unmemorable" experience for tourists	<ul style="list-style-type: none"> Refer Objective 05A C
H	Heritage buildings and features not clearly identified or linked. Some buildings are vacant and in poor repair. Some land on the main street is vacant under-utilised and visually poor.	<ul style="list-style-type: none"> A heritage study should be undertaken in order to identify and categorise existing heritage assets and understand maintenance requirements and adaptive reuse A heritage loop trail should be defined and signposted and connected with town centre and riverside pathway networks Vacant buildings should be assessed for new 'pop up' uses in association with rent reductions (perhaps assisted by council subsidies) to encourage start up businesses and encourage business ideas by eg. young people Vacant land in the main street commercial zone must be utilised as it detracts from the overall main street presentation Uses for this land could be temporary and developed in consultation with the community eg. community gardens, coffee cart, food trucks, playground
I	'Bumbles' monument not easily accessed or visible	<ul style="list-style-type: none"> Curtilage of culturally important artworks should be refurbished so that they are easily accessible, have good sight lines and are well lit. It may be desirable to relocate artworks if curtilage can not meet these requirements or if the artwork would work better elsewhere

DELEGATE

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URBAN AND LANDSCAPE DESIGN CONSTRAINTS	STRATEGY GUIDELINES
B	<ul style="list-style-type: none"> Need to cater for heavy vehicles, caravans/ RVs and motorcycles in specific locations
C	<ul style="list-style-type: none"> On street parking in main street commercial zone is nose-to-kerb On street parking outside of main street commercial zones generally lacks line marking
D	<ul style="list-style-type: none"> Tennis court is not clearly sign posted and lacks line marking for designated vehicle types and lighting To reduce heavy vehicle movements through the town centres in order to improve pedestrian safety and increase amenity for local residents and tourists
E	<ul style="list-style-type: none"> Heavy Vehicle Movements in main street prevents substantial pedestrian, bicycle and landscaping improvements
04	<ul style="list-style-type: none"> To ensure regional heavy vehicle movements has enabled the development of an understanding of heavy vehicle movements through the town centre. Heavy vehicles should be diverted away from main street commercial zones in order to make improvements to pedestrian environment, parking and landscaping Off street heavy vehicle parking area to be considered in order to divert heavy vehicle movements and enable improvements to pedestrian environment, parking and landscaping Further consultation with Roads and Maritime Services and traffic consultants is required to ascertain what types of modification will be allowable. Submission of the strategic master plan is the first step in this process, the outcome of which will inform future master plan phases
05	<ul style="list-style-type: none"> To ensure town centres exhibit a 'sense of arrival', are well presented and architecturally consistent
A	<ul style="list-style-type: none"> Town gateways unclear/unmarked. Lack of 'Sense of Arrival' Gateway signage at either end of Bombala Street, on the Morano Highway and on Forbes Street should be provided in order to heighten the 'sense of arrival' experienced when entering the town. Gateway signage might include feature art work/ walling, banner arrays with current promotions and wayfinding signage/ maps

URBAN AND LANDSCAPE DESIGN CONSTRAINTS	STRATEGY GUIDELINES
J	<ul style="list-style-type: none"> Cenotaph located within road traffic island with no formal crossings making it difficult/dangerous to access Heavy vehicle diversions should be undertaken on a permanent basis in order to facilitate improvements of the pedestrian environment such as widened footpaths and raised thresholds Traffic island turning lane should be removed or converted to shared zone, in order to increase curtilage. Power pole/line re-routed to reduce clutter Ensure continuous accessible footpath and road crossings from town centre to historic/ceremonial sites Provide feature pavement and wall at entry highlighting place of history Ensure continuous accessible footpath and road crossings from town centre to historic/ceremonial sites Provide formal pavement to building highlighting place of history and focusing on existing historic plaque.
K	<ul style="list-style-type: none"> School of Arts and Memorial Park Ceremonial Gates connection to town centre and role in town history requires greater attention
02	<ul style="list-style-type: none"> To ensure that town centres are easy to navigate and utilise clear wayfinding logic and signage
A	<ul style="list-style-type: none"> Poor wayfinding for tourists, strategy needed for location of signage and paths
B	<ul style="list-style-type: none"> Poor pedestrian connectivity between northern and southern residential areas and the main street commercial zone Create accessible pedestrian and cycle shared pathway front caravan amenities building to town centre. Provide lighting along route for night time way finding and safety Formalise through links from Victoria Parade to Bombala Street and provide lighting. Provision of these pathways may require council land acquisition
C	<ul style="list-style-type: none"> Differing and potentially underwhelming experiences for north bound and south bound travellers, due to location and adequacy of facilities, amenities and signage A signage and wayfinding strategy should be undertaken in order to understand fully the signage shortfalls and to develop a new signage strategy
D	<ul style="list-style-type: none"> Lack of path lighting and clearly defined routes at night time A lit shared path linking the caravan park to the town centre should be provided as well as pedestrian through links from Victoria Parade
03	<ul style="list-style-type: none"> To ensure that parking is appropriately located, sized and sign-posted
A	<ul style="list-style-type: none"> A traffic study should be undertaken to understand whether existing parking provisions are adequate for current and future needs New parking and modified existing parking locations have been indicated in the strategic master plan



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DELEGATE

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URBAN AND LANDSCAPE DESIGN CONSTRAINTS	STRATEGY GUIDELINES
B Bundian Way	<ul style="list-style-type: none"> Continue to research and promote incorporation of the Bundian Way into a regional tourism program Identify the Bundian Way through use of signage strategy and art works Maintain themed installation as part of Bundian Way Gallery exhibitions. Provide additional artwork in other locations within town to promote the gallery and local artists
CE	To ensure utilities are rationalised and well planned in order to minimise their intrusion on to the public domain.
A	<ul style="list-style-type: none"> Stormwater improvements, particularly at outlets to river (naturalisation/ filtration) Naturalise stormwater outlets in order to reduce water velocities on entering river
B	<ul style="list-style-type: none"> Explore opportunities for Water Sensitive Urban Design (WSUD) in refurbished streetscapes in order to capture stormwater for reuse in irrigation WSUD interventions may include street trees with soaker pits, kerb blaster rain gardens, awning water collector Surplus stormwater sent back to pit and pipe network following water quality improvement prior to entering river catchment.
C	<ul style="list-style-type: none"> Stone lined gutters and drains an important heritage feature exhibiting poor condition in some locations Stone gutters, drains and canals are to be retained and incorporated into a mapped heritage trail and restored where required
D	<ul style="list-style-type: none"> Lighting Ideally a new lighting system and network would be provided as part of the town centre rejuvenation. In addition council should explore whether a private network would be required for the proposed works If kerbs are relocated then kerbside lighting must move with the kerb to maintain a consistent kerb offset in accordance with the relevant standard Undergrounding of power should be undertaken in order to reduce visual clutter of the streetscape

URBAN AND LANDSCAPE DESIGN CONSTRAINTS	STRATEGY GUIDELINES
B Main street facades inconsistent in appearance and "un-memorable"	<ul style="list-style-type: none"> Architectural improvements should be made to buildings on the main street, particularly those offering tourist services eg. food and beverage. Improvements should take the form of facade improvements and under-awning lighting, improved retail signage and decorative additions. Improvements adopted should be made in such a manner so that an architectural consistency is achieved that is memorable and includes involvement from land and business owners and other members of the community
C Main street planting minimal, sporadic and in need of rejuvenation	<ul style="list-style-type: none"> Landscape beds and tree planting should be provided as part of a streetscape overhaul including parking redesign and a significant increase in landscape opportunities and planting of street trees
C Seating	<ul style="list-style-type: none"> Seating should be provided at a minimum spacing of 50 metres along all streets within the town centre. Seating should also be provided at pedestrian nodes (crossing points and junctions) A new palette of furniture should be selected from a well known supplier so that it is in regular supply, can be reordered and is cost-effective
E The condition of large sections of footpath is substandard and many areas are discontinuous.	<ul style="list-style-type: none"> A paving finish is to be designed that is robust, cost-effective and complementary to the existing main street character and responsive to the Bundian Way in terms of theming
06 To ensure that parklands are provided for the enjoyment, relaxation and recreation of local residents and tourists	
A Parkland footpaths	<ul style="list-style-type: none"> Provide paths that are of sufficient width, in good condition, accessible and well connected to the pedestrian and cycle pathway network Provide additional connections to the town centre wherever possible.
E Parkland facilities	<ul style="list-style-type: none"> Ensure that facilities are in good condition, particularly those likely to be frequented by tourists so that a positive experience ensues, thus increasing the likelihood of a repeat visit
07 To ensure regional facilities, attractors and neighbouring towns work together as a network for the betterment of the region as a whole	
A Playgrounds	<ul style="list-style-type: none"> Ensure that facilities are in good condition, particularly those likely to be frequented by tourists so that a positive experience ensues thus, increasing the likelihood of a repeat visit The town centre would benefit from a new playground close to the core commercial zone The caravan park playground requires only minor improvements in consideration of current and expected caravan park usage In consideration of the town's demographics, additional playgrounds beyond this, would not be required in the near future

3.5 Urban design strategy

Design elements and materials - Delegate

Following determination of the opportunities, constraints and strategic guidelines, design guidelines, design elements and materials have been identified in relation to specific precincts of the strategic masterplan.

Note: Design actions, materials and product references are provided as a guide only and are subject to future assessment against design requirements and budget.

Table 3-3: DESIGN ELEMENTS AND MATERIALS - CORE COMMERCIAL AREA

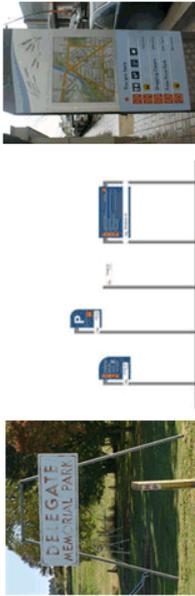
PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
A 01 Bill Jeffery's Park Pathways	<ul style="list-style-type: none"> Construct pathways linking park features and linking the park to the town centre 	<ul style="list-style-type: none"> Colour controlled and textured concrete, minimum 1.5 metres wide 	<p>Below: Coloured and textured concrete to footpaths generally</p> 
02 Lighting	<ul style="list-style-type: none"> Provide fit route to appropriate level of compliance between caravan park and core commercial zone 	<ul style="list-style-type: none"> Post top LED lighting, powdercoated gunmetal grey. Timber components to be sustainably sourced. 	<p>Below: Range of bespoke industrial heritage lighting for pedestrian paths by Aubrilium (Source: https://www.marshall.co.uk/commercial/lighting/light-brackets/).</p> 
03 Landscaping	<ul style="list-style-type: none"> Provide landscaped beds including trees and landscaping of turfed areas to reduce turf maintenance 	<ul style="list-style-type: none"> Plant species from native vegetation communities and complementary cultural species considered inherent to the local area 	<p>Below: Native species from White Box Yellow Box/ Blakely's Red Gum Woodland</p> 

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PRECINCT/ ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
C4 Fencing/ barriers	<ul style="list-style-type: none"> — Fencing along perimeter of oval to prevent vehicle ingress 	<ul style="list-style-type: none"> — Fencing to comprise rural type fencing ie. timber post and rail with black mesh infill 	 <p>Below: Possible fence options comprising post and rail fence (stained black) with black PVC coated chain link mesh</p>
C5 Picnic facilities	<ul style="list-style-type: none"> — Ensure adequate facilities in park ie. BBQ, amenities, shade. Consider upgrading/ replacing shade structures and BBQs 	<ul style="list-style-type: none"> — Modular, easily 'repeatable' shelters and BBQ units. Customised colour selections to ensure consistency with overall town centre palette 	 <p>Left: 'MOD' shelters (Source: http://mod.com.au/beaches). Centre: Christies modular electric BBQ unit (Source: http://christiesparklife.com.au/portfolio/modular-qr-plus). Right: Moodle Z Piazza Table</p>
C6 Refurbished amenities block	<ul style="list-style-type: none"> — Ensure compliant, safe and clean amenities for tourists 	<ul style="list-style-type: none"> — Clean modern facilities fitout 	 <p>Below: Existing amenities block in Bill Jeffrey's Park</p>
C7 Refurbished playground	<ul style="list-style-type: none"> — Refurbish existing playground 	<ul style="list-style-type: none"> — Review existing equipment for compliance and condition. Refurbish replace as necessary 	 <p>Below: Existing playground in Bill Jeffrey's Park</p>

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PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
08	Road reconstruction — Construction of sealed road surfaces to improve access, reduce dust and sedimentation of river	— New coloured asphalt road surface with lush herb	Left: Existing playground in Bill Jeffrey's Park. Right: Coloured asphalt 
09	Rivers edge amphitheatre and canoe launch steps — Repair scoured edges with landscaping	— Jute mesh and planting	Left: Existing amphitheatre in Bill Jeffrey's Park. Right: Existing canoe launch steps in Bill Jeffrey's Park 
E BOMBALA ST: TOPPING ST TO HAYDEN ST			
01	Signage — Provide wayfinding and naming signage as part of an overall signage strategy on Bombala Street	— Signage suite responding to historic signage in the area but constructed of modern robust materials incorporating consistent graphic standards and colours, feature lighting (for major signs) and replaceable elements	Left: Existing signage in Delegate Memorial Park. Centre: Contemporary town centre signage suite Right: Contemporary wayfinding map and information pane 
02	Gateway markers — Existing 'Brumbies' sculpture is intended as town entry marker to denote arrival in town, however it is not well sited or visible to motorists due to colour and size, position and backdrop — Additional locations near intersection of Bombala Street and Corrowong Road and on approach to town from Haydens Bog Road	— If 'Brumbies' location to remain, sculpture setting should be improved with mounding, landscaping and footpath — New gateway signage to comprise sculptural marker employing architectural or natural element, landform and planting	Left: Existing 'Brumbies' sculpture. Right: Examples of town entry sign by Danthonia Designs 
03	Pathways — Construct footpath along verges on both sides of Bombala Street. Wayfinding signage — Review need for pathway loop on Topping/Cragie/Hayden streets as part of town heritage loop walk	— Colour controlled and textured concrete, minimum 1.5 metres wide	Refer A.01

DELEGATE

STRATEGIC MASTERPLAN REVISION

PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
C4 Lighting	<ul style="list-style-type: none"> Ensure lit route to appropriate level of compliance between caravan park and core commercial zone Renew existing landscaped beds and landscaping of turfed areas to reduce turf maintenance 	<ul style="list-style-type: none"> Post top LED lighting, powdercoated to match local government or town colours. Use under-awning lighting where required to maintain compliance Plant species from native vegetation communities and complementary cultural species considered inherent to the local area 	Refer A.02 Refer A.03
C5 Landscaping	<ul style="list-style-type: none"> Construct footpath along verges on both sides of Bombala Street. Wayfinding signage Ensure lit route to appropriate level of compliance between caravan park and core commercial zone 	<ul style="list-style-type: none"> Colour controlled and textured concrete, minimum 2 metres wide Post top LED lighting, powdercoated to match local government or town colours. Use under-awning lighting where required to maintain compliance 	Refer A.01 Below: Range of bespoke industrial heritage lighting for main street and footpaths by Auburnlam (Source: http://www.matsnails.co.uk/commercial/lighting/light-brackets).
C BOMBALA ST: HAYDEN ST TO CHURCH ST			
C1 Pathways	<ul style="list-style-type: none"> Renew existing landscaped beds and landscaping of turfed areas to reduce turf maintenance 	<ul style="list-style-type: none"> Plant species from native vegetation communities and complementary cultural species considered inherent to the local area 	Refer A.03
C2 Lighting	<ul style="list-style-type: none"> Realigning of kerbs and drainage inlets 	<ul style="list-style-type: none"> Colour controlled kerbs and paved kerb ramps, ductile iron stormwater pits 	Below: Town centre kerb reconstruction including upgraded kerbs, paving, stormwater pits, kerb ramps and landscaping
C3 Landscaping	<ul style="list-style-type: none"> Unmarking of road surface in order to improve road efficiency and to identify surplus road surface that could be converted to landscaped area or pedestrianised 	<ul style="list-style-type: none"> Unmarking 	Below: Example of on-street linemarking
D BOMBALA ST: CHURCH ST TO CAMPBELL ST			
C1 Road reconstruction	<ul style="list-style-type: none"> Realigning of kerbs and drainage inlets 	<ul style="list-style-type: none"> Colour controlled kerbs and paved kerb ramps, ductile iron stormwater pits 	Below: Town centre kerb reconstruction including upgraded kerbs, paving, stormwater pits, kerb ramps and landscaping
C2 Road linemarking	<ul style="list-style-type: none"> Unmarking of road surface in order to improve road efficiency and to identify surplus road surface that could be converted to landscaped area or pedestrianised 	<ul style="list-style-type: none"> Unmarking 	Below: Example of on-street linemarking



PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
03	On-street car parking — Linedarked carpark on existing road surface with water sensitive urban design measures to capture runoff	— Asphalt carpark surface, planted blisters	Below: Onstreet parking lane with planted blisters 
04	Pathways — Construct footpath along verges on both sides of Bombala Street and on pedestrian through links and side streets sufficient for providing crossings. Wayfinding signage	— Colour controlled and textured concrete, minimum 2.5 metres wide — Rustic stone paving to building surrounds — Rustic brick paving with subtle colour variation to core commercial area	Left: Granite paving to features/ heritage areas. Centre: Brick paving to building surrounds. Right: Colour controlled concrete 
05	Lighting — Ensure lit route to appropriate level of compliance between caravan park and core commercial zone. Provide pedestrian lighting of through links and side streets sufficient to light crossings	— Frost top LED lighting, powdercoated to match local government or town colours. Use under awning lighting where required to maintain compliance	Refer C.02
06	Landscaping — Provide landscaped beds between kerbs and footpaths and in kerb blisters	— Plant species from native vegetation communities and complementary cultural species considered inherent to the local area	Refer A.03
07	New amenities facility — Consider new amenities facility in the heart of town on one of several vacant blocks on the main street	— Iconic new structure that interprets rural vernacular — Consider as stand alone facility or in conjunction with other vacant block activation uses ie. Children's play ground	Below: New amenities block architecture (Source: Public toilets in Japan - Tato Architects, Foley Park - Stanistic Architects, Dubbo Amenities - Alexandra Murray/Design (rbae) 
E BOMBALA ST; CAMPBELL ST TO JEFFREY ST			
01	Road reconstruction — Realignment of kerbs and drainage inlets	— Colour controlled kerbs and paved kerb ramps	Refer D.01
02	Road linemarking — Linemarking of road surface in order to improve road efficiency and to identify surplus road surface that could be converted to landscaped area or pedestrianisc.	— Linemarking	Refer D.02

DELEGATE

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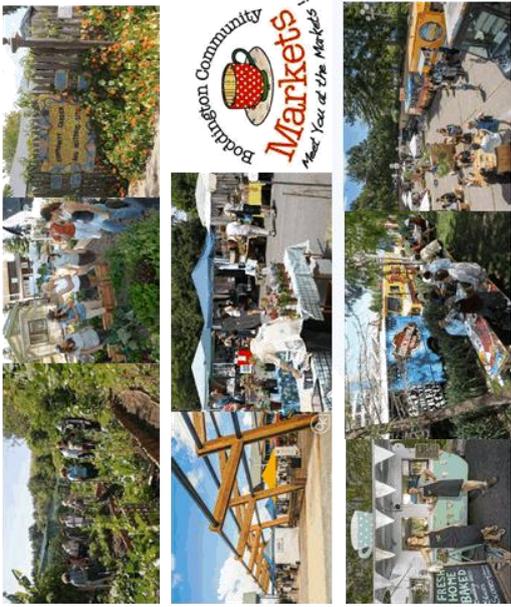
PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
C3	On-street car parking	<ul style="list-style-type: none"> — Linemarked carpark on existing road surface with water sensitive urban design measures to capture runoff 	Refer D.02
C4	Pathways	<ul style="list-style-type: none"> — Construct footpath along southern verge of Bombala Street and on pedestrian through links and side streets sufficient for providing crossings. Wayfinding signage 	Refer D.04
C5	Lighting	<ul style="list-style-type: none"> — Ensure lit route to appropriate level of compliance throughout core commercial zone. Provide pedestrian lighting of through links and side streets sufficient to light crossings 	Refer C.02
C6	Landscaping	<ul style="list-style-type: none"> — Provide landscaped beds between kerbs and footpaths and in kerb blisters 	Refer A.03
F. VICTORIA PARADE			
C1	Road reconstructor	<ul style="list-style-type: none"> — Construction of kerbs and drainage inlets 	<p>Left: Existing playground in Bill Jeffrey's Park. Right: Coloured asphalt</p> 
C2	Road linemarking	<ul style="list-style-type: none"> — Linemarking of road surface 	Refer D.02
C3	Off-street heavy vehicle, car and motorcycle parking	<ul style="list-style-type: none"> — Construct new sealed carpark with linemarking and water sensitive urban design measures to capture runoff 	<p>Left: Existing town paddock converted to heavy vehicle parking area</p> 
C4	Pathways	<ul style="list-style-type: none"> — Construct footpath along northern verge and on pedestrian through links. Wayfinding signage 	<p>Left: Existing laneways converted to pedestrian through link between Victoria Parade & Bombala Street</p> 



BOMBALA AND DELEGATE TOWN CENTRE

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PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
05 Lighting	<ul style="list-style-type: none"> Ensure lit route to appropriate level of compliance throughout core commercial zone. Provide pedestrian lighting of thorough links and side streets sufficient to light crossings 	<ul style="list-style-type: none"> Post top LED lighting, powdercoated to match local government or town colours. Use under-awning lighting where required to maintain compliance 	Refer C.02
06 Landscaping	<ul style="list-style-type: none"> Provide landscaped beds between kerbs and footpaths and in kerb blisters 	<ul style="list-style-type: none"> Plant species from native vegetation communities and complementary cultural species considered inherent to the local area 	Refer A.03
07 Acoustic fencing	<ul style="list-style-type: none"> Consider acoustic fencing and other treatments to reduce noise of heavy vehicle movements 	<ul style="list-style-type: none"> Fencing may need consist of concrete panel in order to achieve sufficient noise control, however options include timber, steel or glazed screens and gabion filled walls 	Below: A range of noise panel materials 
08 Picnic facilities	<ul style="list-style-type: none"> Ensure adequate facilities in park i.e. BBQ amenities, shade 	<ul style="list-style-type: none"> Modular, easily 'repeatable' shelters and BBQ units. Customised colour selections to ensure consistency with overall town centre palette 	Refer A.05
09 Playground	<ul style="list-style-type: none"> Provide accessible and bespoke playground that interprets the regions history and caters to a variety of children's ages and abilities 	<ul style="list-style-type: none"> Combination of proprietary and custom play equipment, landform and natural elements with carefully selected proprietary equipment, sculpture and water play 	Below: Range of playgrounds involving nature play, landform and water play 

PRECINCT/ ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
<p>CS Community gardens and markets</p>	<p>— Construct community garden and market space on vacant land between Victoria Parade and Bombala Street</p>	<p>— Raised community garden beds, gravel surfaces, seating and shade. Food trucks and market stalls</p>	 <p>Top: Community gardens. Centre: Community markets. Bottom: Food truck festivals</p>
<p>1C Playground</p>	<p>— Provide regional playground for all ages</p>	<p>— Combination of landform and natural elements with carefully selected proprietary equipment and water play</p>	 <p>Below: Range of playgrounds involving nature play, landform and water play</p>

BOMBALA AND DELEGATE TOWN CENTRE

DELEGATE

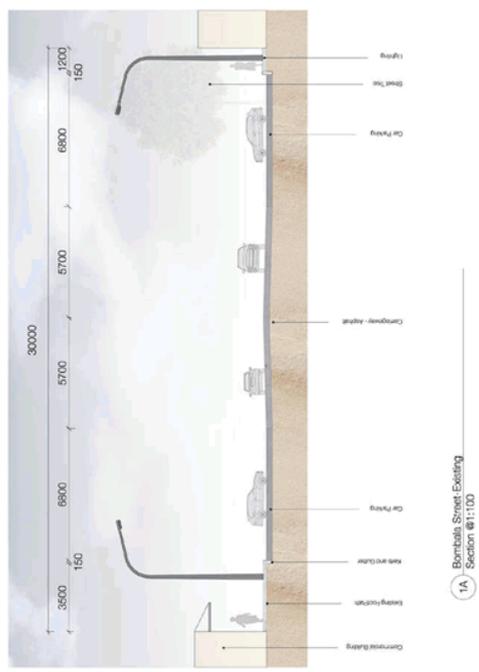
PRECINCT/ELEMENT	DESIGN ACTION	MATERIALS SELECTIONS	CHARACTER
C RIVERSIDE			
01 Pathways	<ul style="list-style-type: none"> Construct pathways linking river edges to ensure continuous pathway between Coorowong Street (Playpys Walk) and Bill Jeffreys Park (Federation River Walk). Wayfinding signage 	<ul style="list-style-type: none"> Colour controlled and textured concrete, minimum 2 metres wide Rustic stone paving to building surrounds 	<p>Left: Brick paving to building surrounds. Right: Colour controlled concrete</p> 
03 Landscaping	<ul style="list-style-type: none"> Planting at path gateways and connection nodes. General planting along path 	<ul style="list-style-type: none"> Plant species from native vegetation communities, particularly riparian species 	<p>Below: Native groundcover and grass species</p> 
04 Picnic facilities	<ul style="list-style-type: none"> Ensure adequate facilities along route i.e. BBQ, shade 	<ul style="list-style-type: none"> Modular, easily 'repeatable' shelters and BBQ units. Customised colour selections to ensure consistency with overall town centre palette 	<p>Refer A.05</p>

Drawings - Delegate

The following plans and sections have been drawn to reflect the outcomes of the analysis, objectives and strategy guidelines. Refer **Figures 3-4 to 3-5** on the following pages.

BOMBALA AND DELEGATE TOWN CENTRE
 URBAN SCALE

Existing Street Section



Proposed Street Section

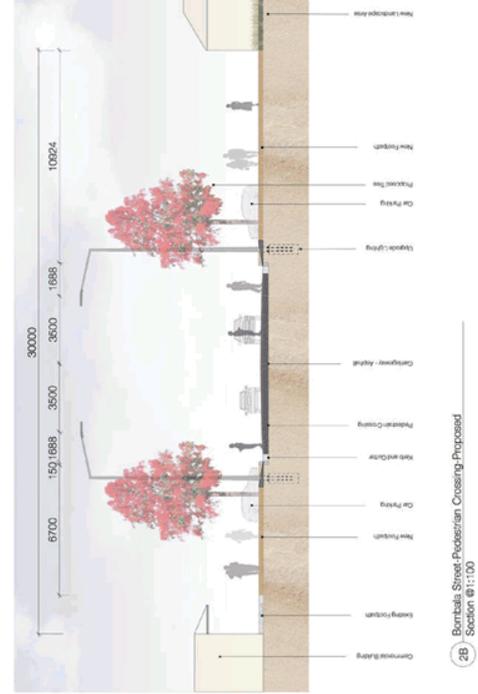
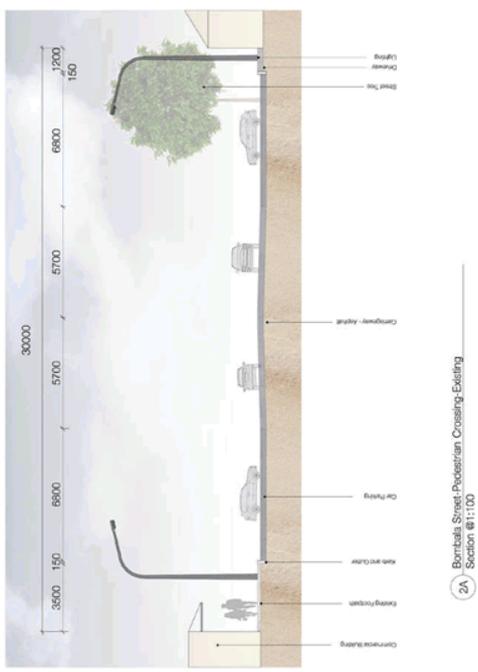
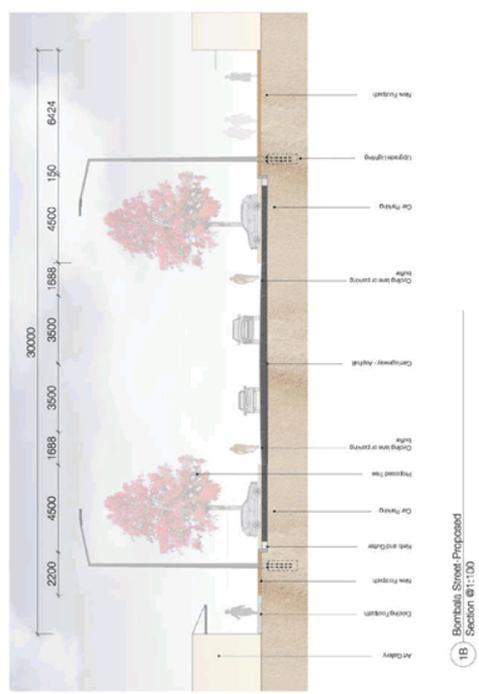


Figure 3-5: Drawing SK04: Typical Sections Delegate - Bombala Street/ Delegate Road

Plate 3-2: Eastern approach to Delegate town centre from Bombala Street (following page)







- LEGEND - CONCEPT**
- Strategic Objectives - Precincts**
- 1 Heavy Vehicle Parking Truck Stop
 - 2 Carwash Park Upgrade
 - 3 Pedestrianised Lanes with Lighting
 - 4 Road Upgrade to include Truck Parking
 - 5 New Carwash
 - 6 New Truck Stop Area
 - 7 Potential new park/ playground
 - 8 Potential new park/ community garden
 - 9 Loading Zone
 - 10 Mainline Open Views to Carwash
 - 11 Memorial Gate

- Transport and Circulation**
- Minimum 2.4m Footpath - New
 - Footpath - Existing
 - Footpath - New
 - Visual and Acoustic Barrier
 - Road Edge - Existing
 - Road Edge - New
 - New Concrete Road
 - New Concrete Road with Foot Path
 - New Road with Concrete Vehicle Access and Lighting
 - Road - New Upgrade
 - New Repaved/Bitum Lanes Marking
 - Speed Limit

- Maps - Existing**
- Maps - New
 - Potential Street
 - New Concrete Road
 - New Concrete Road with Foot Path
 - Analysis to determine crossing type is either single track, two stage etc.

- Land Use**
- Market Land to be Activated
 - Main Car Park - New
 - Potential Council Activation Boundary - Future Stage
 - New Planting
 - New Planting
 - Tall New
 - Existing park, open space
 - Existing Trees
 - New Trees
 - Existing Trees - Removed

SK03

DELEGATE TOWN CENTRE
 Snowy Monaro Council - Bombala Branch
 Delegate, NSW

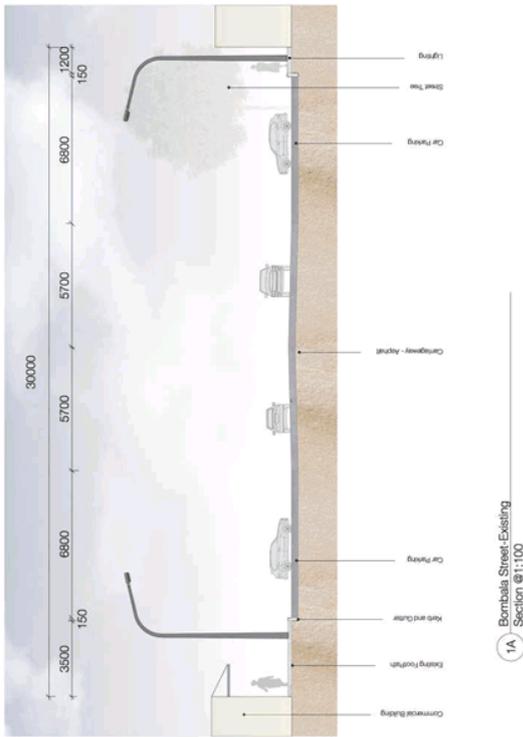
STRATEGIC CONCEPT PLAN
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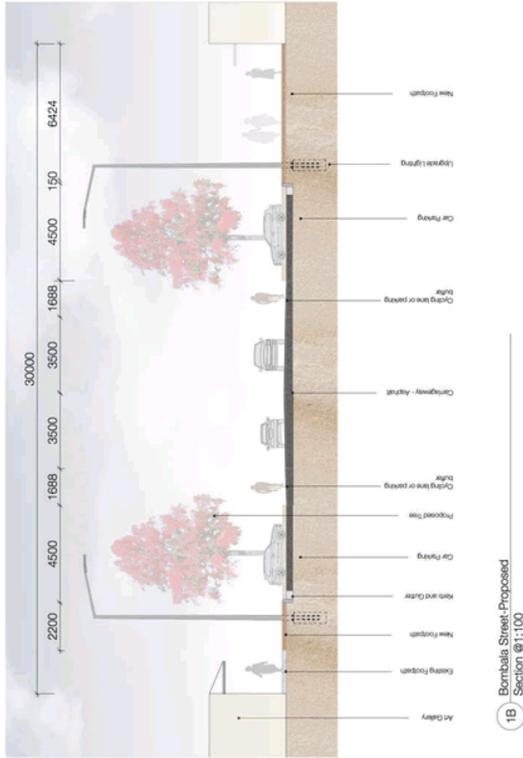


Existing Street Section



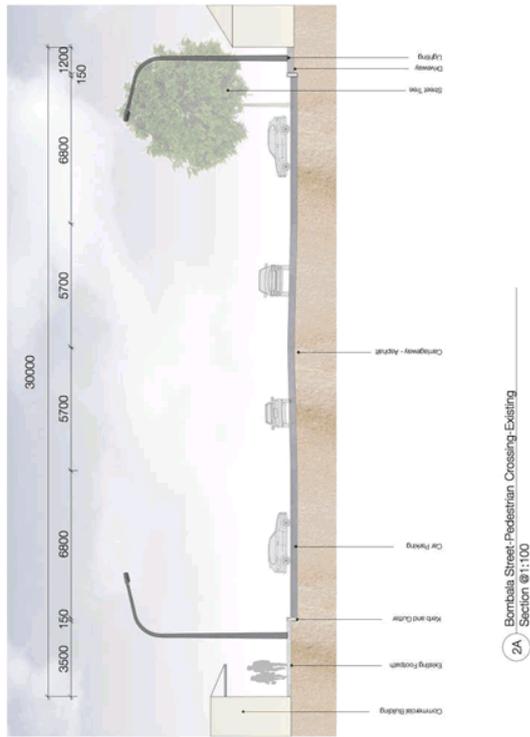
1A Bombala Street-Existing Section @ 1:100

Proposed Street Section

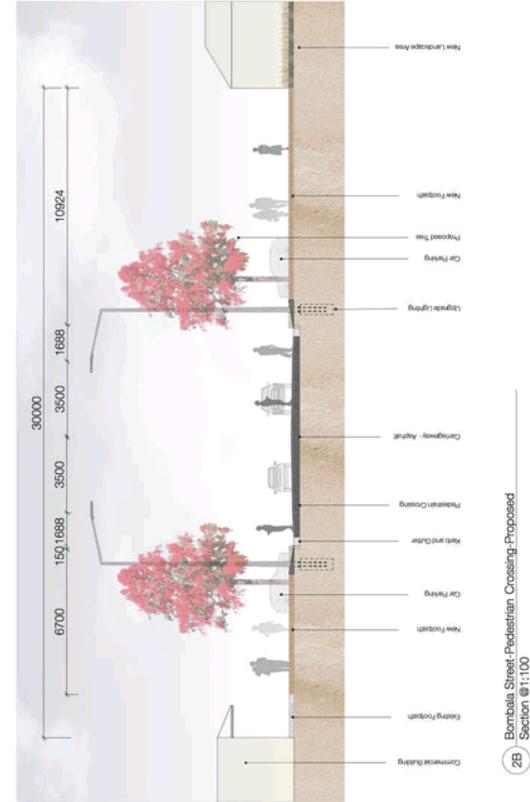


1B Bombala Street-Proposed Section @ 1:100

Existing Street Section



2A Bombala Street-Pedestrian Crossing-Existing Section @ 1:100



2B Bombala Street-Pedestrian Crossing-Proposed Section @ 1:100

SK04

DELEGATE TOWN CENTRE

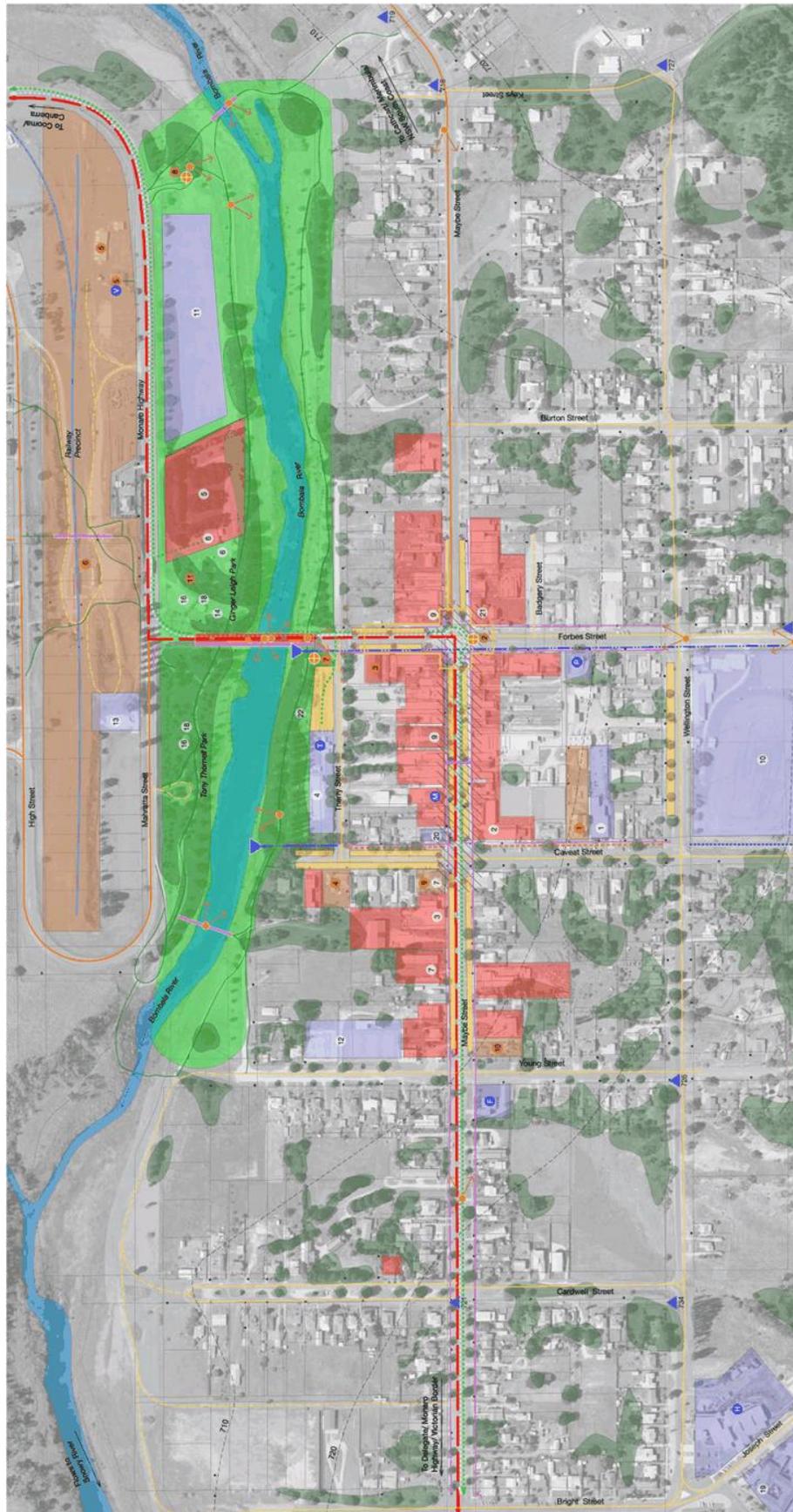
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TYPICAL SECTIONS

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Engineering Manager

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LEGEND - ANALYSIS

- Key Local Attractions**
 - 1 Council Offices
 - 2 F&B Club
 - 3 Service Station Fuel
 - 4 Community Centre
 - 5 Caravan Park
 - 6 Caravan Park Office Annexes
 - 7 Hotel/Quart House
 - 8 Shopping Centre/Service Store
 - 9 Public Hotel
 - 10 Showground
 - 11 Boardwalk Home Sportfield
 - 12 Tennis Courts
- Heritage and Cultural Attractions**
 - 1 Former Library Institute
 - 2 Crematorium
 - 3 Former Cinema Building
 - 4 Former 'Woolly House' residence
 - 5 Former 'Woolly House' residence
 - 6 Former 'Woolly House' residence
 - 7 Former 'Woolly House' residence
 - 8 Former 'Woolly House' residence
 - 9 Former 'Woolly House' residence
 - 10 Former 'Woolly House' residence
 - 11 Former 'Woolly House' residence
 - 12 Former 'Woolly House' residence
 - 13 Former 'Woolly House' residence
 - 14 Former 'Woolly House' residence
 - 15 Former 'Woolly House' residence
 - 16 Former 'Woolly House' residence
 - 17 Former 'Woolly House' residence
 - 18 Former 'Woolly House' residence
 - 19 Former 'Woolly House' residence
 - 20 Former 'Woolly House' residence
 - 21 Former 'Woolly House' residence
 - 22 Former 'Woolly House' residence
- Public Services**
 - 1 Hospital/Medical Centre
 - 2 Police Station
 - 3 Fire Brigade/Fire Station
 - 4 Public Library
 - 5 Public Amenities
- Site Features**
 - 1 River Creek
 - 2 Contour Line (approx. 10m interval)
 - 3 Local High Point (above sea level)
 - 4 Local Low Point (below sea level)
 - 5 Local Slope
 - 6 Street Tree
 - 7 Street Tree
 - 8 Street Tree
 - 9 Street Tree
 - 10 Street Tree
 - 11 Street Tree
 - 12 Street Tree
 - 13 Street Tree
 - 14 Street Tree
 - 15 Street Tree
 - 16 Street Tree
 - 17 Street Tree
 - 18 Street Tree
 - 19 Street Tree
 - 20 Street Tree
 - 21 Street Tree
 - 22 Street Tree
- Heritage and Cultural Features**
 - 1 Area of Memorial Service
 - 2 Monument
 - 3 Stormwater Drain
 - 4 Stormwater Drain
 - 5 Stormwater Drain
 - 6 Stormwater Drain
 - 7 Stormwater Drain
 - 8 Stormwater Drain
 - 9 Stormwater Drain
 - 10 Stormwater Drain
 - 11 Stormwater Drain
 - 12 Stormwater Drain
 - 13 Stormwater Drain
 - 14 Stormwater Drain
 - 15 Stormwater Drain
 - 16 Stormwater Drain
 - 17 Stormwater Drain
 - 18 Stormwater Drain
 - 19 Stormwater Drain
 - 20 Stormwater Drain
 - 21 Stormwater Drain
 - 22 Stormwater Drain
- Transport and Circulation**
 - 1 Highway/Main Road
 - 2 Local Road Connections
 - 3 Town Road
 - 4 Roadway/Former Roadway
 - 5 Roadway/Former Roadway
 - 6 Roadway/Former Roadway
 - 7 Roadway/Former Roadway
 - 8 Roadway/Former Roadway
 - 9 Roadway/Former Roadway
 - 10 Roadway/Former Roadway
 - 11 Roadway/Former Roadway
 - 12 Roadway/Former Roadway
 - 13 Roadway/Former Roadway
 - 14 Roadway/Former Roadway
 - 15 Roadway/Former Roadway
 - 16 Roadway/Former Roadway
 - 17 Roadway/Former Roadway
 - 18 Roadway/Former Roadway
 - 19 Roadway/Former Roadway
 - 20 Roadway/Former Roadway
 - 21 Roadway/Former Roadway
 - 22 Roadway/Former Roadway
- Land Use**
 - 1 Commercial Retail
 - 2 Institutional/Public Service
 - 3 Community/Residential
 - 4 Community/Residential
 - 5 Community/Residential
 - 6 Community/Residential
 - 7 Community/Residential
 - 8 Community/Residential
 - 9 Community/Residential
 - 10 Community/Residential
 - 11 Community/Residential
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 - 22 Community/Residential

FINAL

SK01

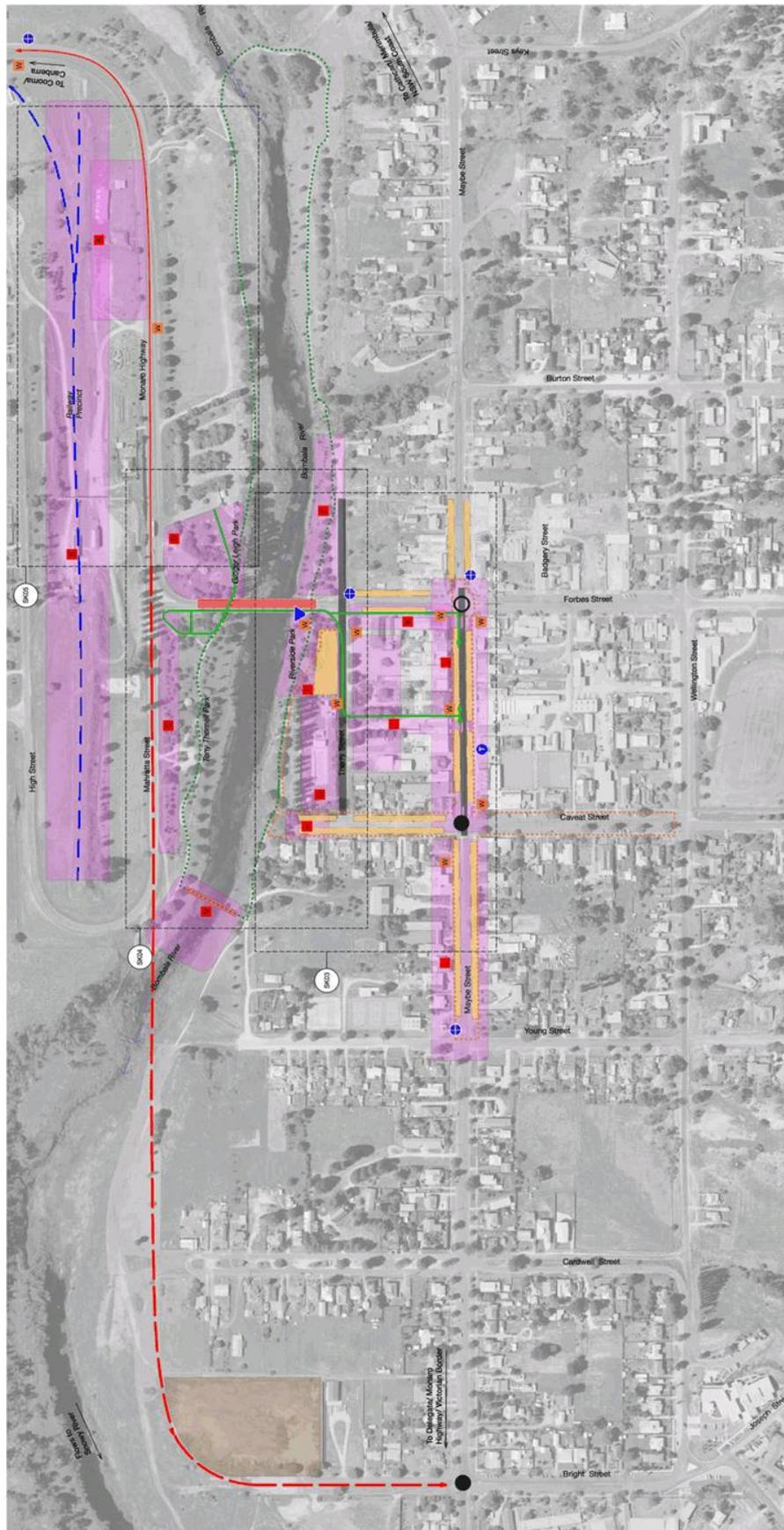
BOMBALA TOWN CENTRE

Snowy Monaro Regional Council

Bombala, NSW

SITE ANALYSIS PLAN

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LEGEND - STRATEGY

Proposed	Visitor Information Centre and Museum	Revised Pedestrian Link and New Town Plaza	Utilities	Stormwater Outlet - Repair/ Replace
	Railway Lands	Main Street and New Amenities Plaza		Public Amenities
	Tom Throssel Park	Fronts Street North		Public Amenities
	Ginger Lough Park	Main Street West		Land Use
	Revised South End	Revised South West		Upgrade/Revised
	Swimming Centre Casuarina	Public Amenities		Future Light Industrial Development/ Employment Lands
	Swimming Centre	Wayfinding Signage		
	Closest Street North			

Site Features

	Local Views - New/ Restore		Public Carpark - New/ Repair
	Existing Vegetation - Supplement/ Extend		Formal pedestrian crossing - New
	Proposed View		Informal pedestrian crossing - New/ Rep/ Repair
	Revised Line Plan		Proposition bridge - New
	Movement - Refurbish/ Reconfigure		New/ Upgrade
	Stormwater		Stormwater and Bridge
	Stormwater Storm Drain - Refurbish		Road Upgrade
	Proposed Heritage Interpretation Trail		New Roundabout
	Proposed Heritage Interpretation and Bicycle Trail		Upgraded Roundabout

Transport and Circulation

	Public Carpark - New/ Repair
	Formal pedestrian crossing - New
	Informal pedestrian crossing - New/ Rep/ Repair
	Proposition bridge - New
	New/ Upgrade
	Stormwater and Bridge
	Road Upgrade
	New Roundabout
	Upgraded Roundabout

Utilities

	Stormwater Outlet - Repair/ Replace
	Public Amenities
	Land Use
	Upgrade/Revised
	Future Light Industrial Development/ Employment Lands

FINAL

SK02
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Bombala, NSW

BOMBALA TOWN CENTRE
STRATEGIC MASTER PLAN

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SNOWY MONARO REGIONAL COUNCIL
strategic planning



LEGEND - CONCEPT

- Strategic Objectives - Precincts**
- 1 Upgrade CBD Facilities
- 2 New Lighting to Bridge Carriage for Pedestrian Safety
- 3 Upgrade CBD Facilities
- 4 Precinct Upgrade
- 5 Pedestrian Locomotion
- 6 New Path Lighting for Bridge
- 7 Pedestrian Playground
- 8 Pedestrian Pathway
- 9 Pedestrian Pathway
- 10 Upgrade Car Park
- 11 Relocate Shower Memorial
- 12 Future Pedestrian Bridge
- 13 New Caravan Keyhole Club, Retail
- 14 New Water and Pedestrian Path
- 15 Pedestrian Playground
- 16 Pedestrian Pathway
- 17 New Water Deck

Transport and Circulation

- Memorial 2.4m Footpath - New
- Footpath - Existing
- Road - New / Upgrade
- New / Replacement Lane Marking
- Speed Limit
- New / Replace Alternative Route
- Keep - New
- Heritage Features
- Heritage Corridor - New
- Note: Pedestrian crossing requires further study to confirm location, width, signage, etc.

Land Use

- New Building
- New Town Plaza
- Car Park - New
- Reversible Lane Busway Lane
- Pedestrian Enclosed Building or Area
- Current Council Adoption Boundary - Future Stage
- New Planning
- Existing - New
- Existing - New - Renewed
- New Street Trees

Utilities

- New Post Top Lighting to Pedestrian Route
- New Post Top Lighting to Street

FINAL

SK04

BOMBALA TOWN CENTRE
Snowy Monaro Regional Council
Bombala, NSW

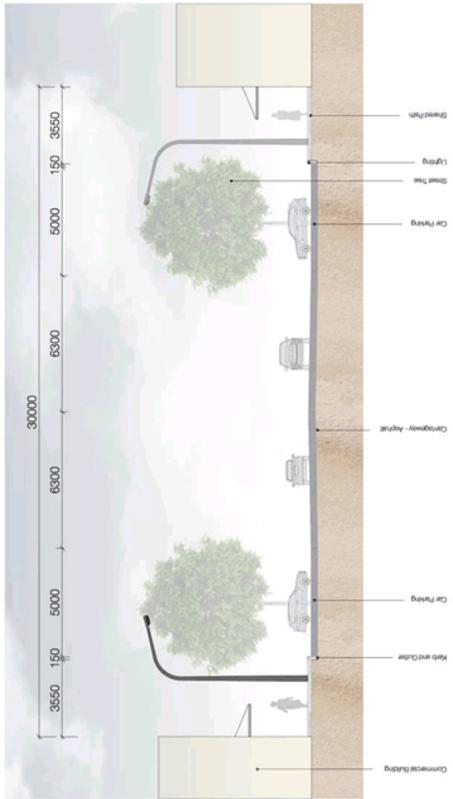
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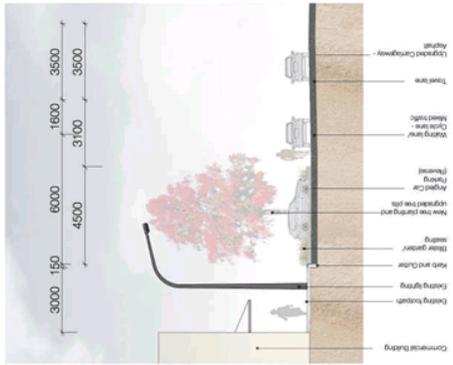
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Existing Street Section

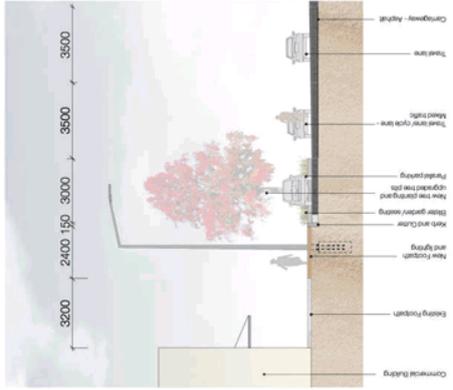


1A | 1:100
Maybabe Street (Monaro Highway) - Existing

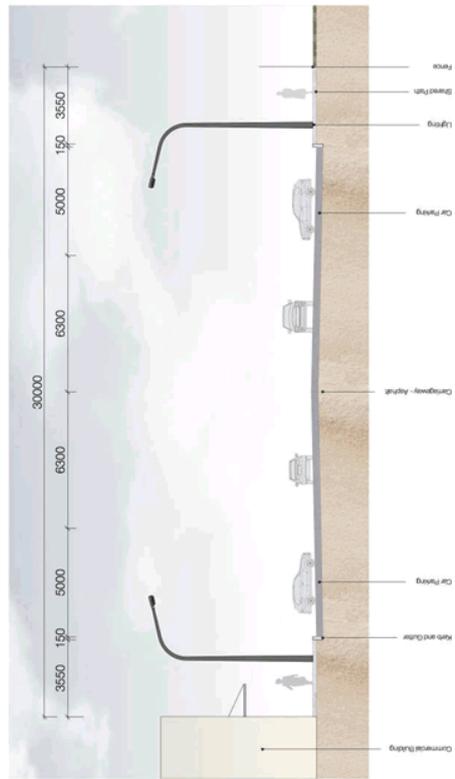
Proposed Street Section



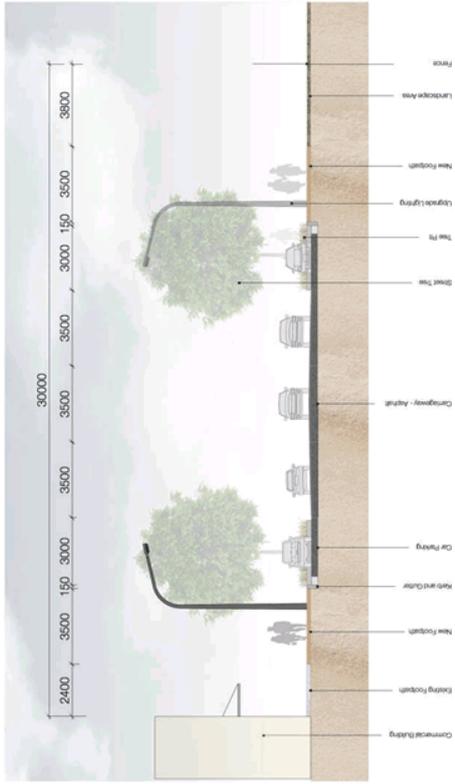
1B | 1:100
Maybabe Street (Monaro Highway) - Proposed



1C | 1:100
Maybabe Street (Monaro Highway) - Optional Parallel Parking



2A | 1:100
Forbes Street (Monaro Highway) - Existing



2B | 1:100
Forbes Street (Monaro Highway) - Proposed

SK006

BOMBALA TOWN CENTRE

Snowy Monaro Regional Council
Bombala, NSW

TYPICAL SECTIONS 1

FINAL

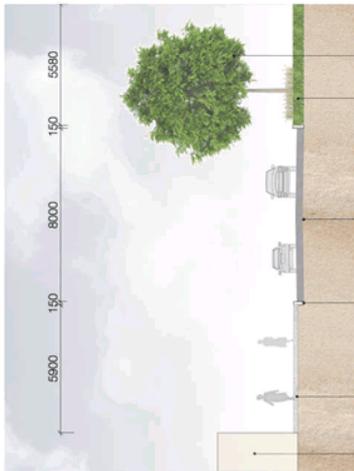
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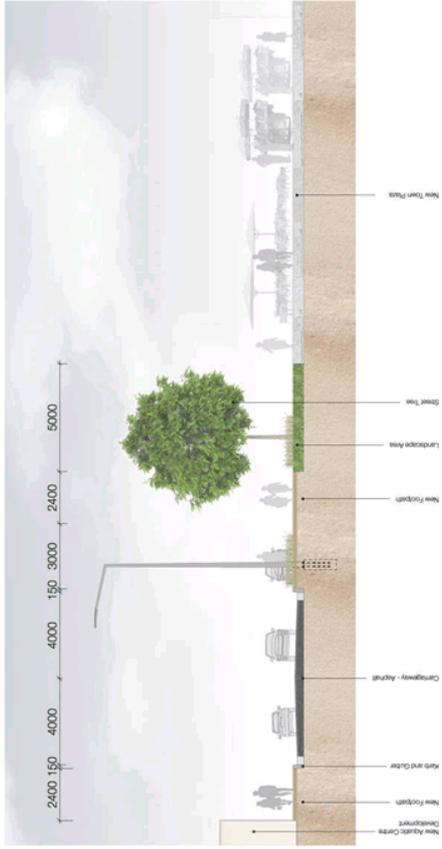
SNOWY MONARO REGIONAL COUNCIL
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www.snowymonaro.nsw.gov.au

Existing Street Section

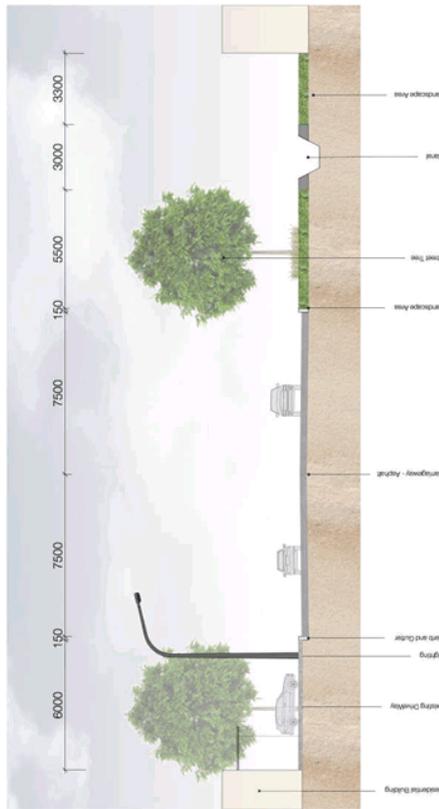


3A Therry Street - Existing 1:100

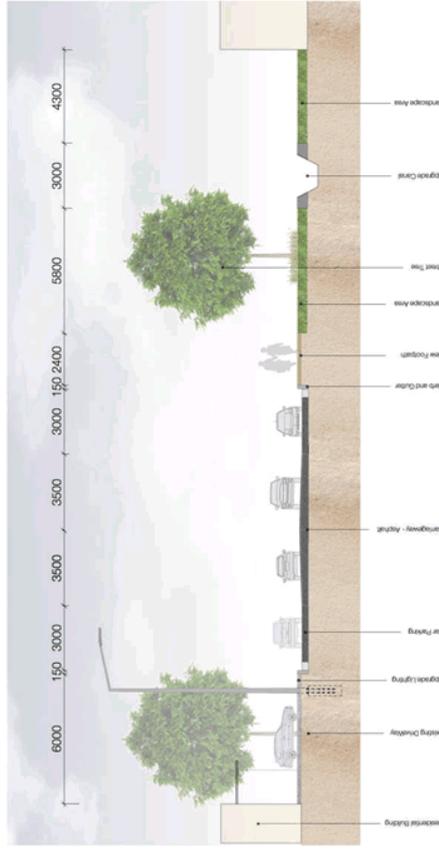
Proposed Street Section



3B Therry Street - Proposed 1:100



4A Cleveat Street - North - Existing 1:100



4B Cleveat Street - North - Proposed 1:100

SK07

BOMBALA TOWN CENTRE

Snowy Monaro Regional Council
Bombala, NSW

TYPICAL SECTIONS 2

FINAL

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Road Maintenance Deep Dive Service Review – Final Report

June 2017



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Sealed and Unsealed Road Maintenance Deep Dive Report

June 2017

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1. BACKGROUND

The Snowy Monaro Regional Council conducted baseline service reviews for 80 services (reorganised into 76 functions) in 2016 as part of the Department of Premier and Cabinet (DPC) Phase 1 Roadmap requirements.

At the end of that process, an assessment of all the functions was undertaken to identify and prioritise those functions to be further analysed in depth i.e. a “Deep Dive” review.

They were rated against the following criteria;

- Ease of implementation
- Potential cost savings
- Number and significance of improvement actions
- Industry knowledge
- Previous service review recommendations
- Customer Satisfaction Survey Results – October 2016
- Number of employees affected
- Legislative requirements
- Corporate system requirements/limitations

Roads Operations (Sealed and Unsealed Road Maintenance) was identified as the first priority review to be performed.

2. PURPOSE

The purpose of the Deep Dive service review process is to identify:

- The optimal service level to meet stakeholder/community needs within a sustainable resourcing framework
 - To inform the budget, long term financial plan, workforce plan, asset management plan
 - To inform decisions on the optimal location of services
 - For consultation with the community
- Full cost of the service
- The most cost effective efficiency improvements including harmonisation of processes/procedures
- A baseline from which to measure service improvement and potential benchmarks

3. METHODOLOGY

3.1 Consultation

The Deep Dive Service Review for Roads Maintenance involved extensive consultation and involvement throughout the data collection and analysis with the following stakeholders:

Table 1: Internal and External Stakeholders

Business Unit
Innovation and Business Development
Supported by CAM Management Solutions
Director Operations & Infrastructure
Transport Infrastructure (Operations)
Fleet Management
Finance
Assets
Procurement
Human Resources

3.2 Process

The methodology followed a process of key steps for Sealed and Unsealed Road Maintenance:

1. Identification of Council's road categories
2. Identification of Budget
3. Identification of Service Levels (intervention items and times)
 - a) For RMS Roads
 - b) For Council Roads – sealed and unsealed
4. Analysis of Service Delivery
5. Analysis of Council Plant
 - a) Identification of plant specifications
 - Plant number
 - Location
 - Date of acquisition/cost
 - Date of disposal
 - Depreciation expense/written down value
 - Condition rating
 - Utilisation (Life to Date, Year to Date) – perceived vs actual
 - Plant maintenance cost
 - Fleet hire cost
6. Cost Analysis of Intervention items
 - a) Identification of minimum and maximum plant, material and FTE requirements
7. Risk Analysis
 - a) Identification of high to extreme risks of current service provision
8. Key Findings and Proposed Actions
 - a) Derived from the data analysis and consultation with stakeholders
9. Benefits Realisation
 - a) Major benefits from proposed service improvement actions

4. ROAD NETWORK

The Snowy Monaro Regional Council (SMRC) road network covers a geographic area of 15,162 km² and serves a residential population of 19,949 people (2015) and an estimated tourist throughout of 1,247,000 people per annum.

Figure 1: Australia Bureau of Statistics - Snowy Mountains Population Analysis

Snowy Mountains (SA3)

New South Wales > Capital Region

		Period	Snowy Mountains	Australia
 People	Persons (no.)	2015	19,949	23,777,777
	Male (no.)	2015	10,437	11,826,927
	Female (no.)	2015	9,512	11,950,850
	Median Age - Persons (years)	2015	43.6	37.4
 Economy	Total number of businesses (no.)	2015	2,458	2,121,235
	Building Approvals - Value of Total Building (\$m)	2016	39	110,387
	Houses - median sale price (\$)	2014	250,000	460,000
	Median total income (excl. Government pensions and allowance) (\$)	2013	39,412	44,940
 Industry	Total registered motor vehicles (no.)	2016	17,128	18,387,138
	Main employing industry: Accommodation and food services (%)	2011	13.6	
 Energy & Environment	Land area (ha)	2011	1,428,183	768,848,540.5
	Small-scale solar panel system installations 2001-2014 (no.)	2014	1,005	1,367,920

Reference: <http://stat.abs.gov.au/>

Figure 2: Tourism Research Australia – Tourism Metrics Snowy Mountains

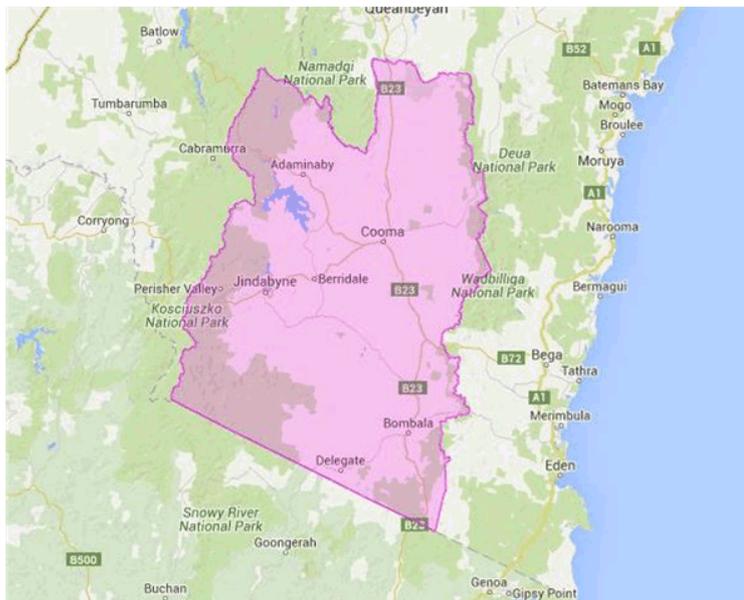
	INTERNATIONAL	DOMESTIC OVERNIGHT	DOMESTIC DAY	TOTAL
Visitors ('000)	22	744	481	1,247
Nights ('000)	356	2,470	-	2,826
Average stay (nights)	16	3	-	4
Spend (\$m)	16	421	44	481
Average spend per trip (\$)	700	566	92	386
Average spend per night (\$)	44	170	-	155
Average spend (commercial accommodation) per night (\$)	44	233	-	208

Reference: <https://www.tra.gov.au/>

The SMRC road network connects with Australian Capital Territory and Queanbeyan Palerang Regional Council to the north, Bega Valley Shire Council and Eurobodalla Shire Council to the east, Snowy Valleys Council to the west and East Gippsland Shire Council to the south.

The figure below illustrates the Regional boundary serviced by the road network within the SMRC Council area.

Figure 3: Snowy Monaro Regional Council (SMRC) Road Network Region





Sealed and Unsealed Road Maintenance Deep Dive Report

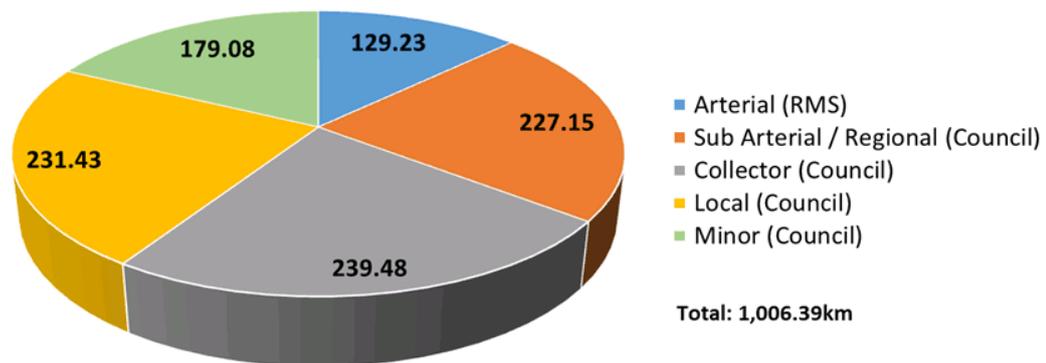
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4.1 Sealed Road Network

The total length of sealed road network maintained by SMRC has been calculated at 1,006.39km. The figure below and related pie shows the total length for each of the five road categories.

Figure 4: SMRC Sealed Road Network

Sealed Road Network	Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	TOTAL
<i>Cooma-Monaro Length (Km)</i>	-	87.09	84.92	76.87	87.26	336.14
<i>% of Length</i>	0%	26%	25%	23%	26%	100%
<i>Snowy-River Length (Km)</i>	73.00	96.00	110.50	110.50	53.00	443.00
<i>% of Length</i>	16%	22%	25%	25%	12%	100%
<i>Bombala Length (Km)</i>	56.23	44.06	44.06	44.06	38.82	227.25
<i>% of Length</i>	25%	19%	19%	19%	17%	100%
Total SMRC Length (Km)	129.23	227.15	239.48	231.43	179.08	1,006.39
<i>% of Length</i>	13%	23%	24%	23%	18%	100%

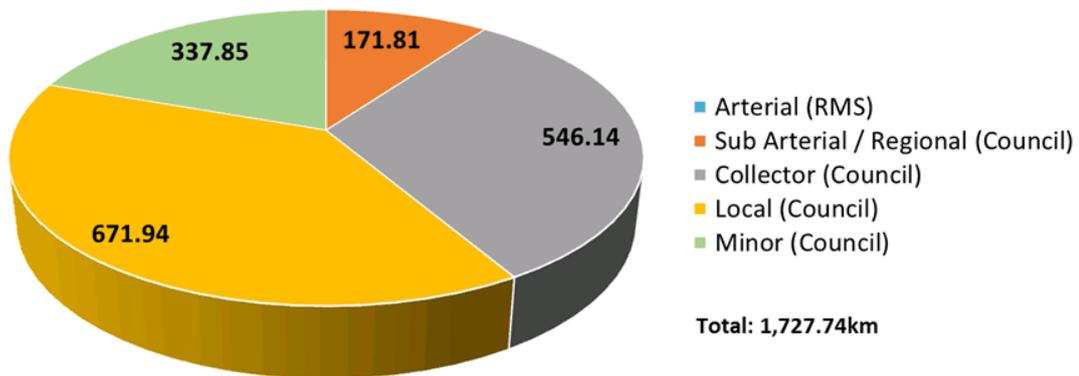


4.2 Unsealed Road Network

The total length of unsealed road network maintained by SMRC has been calculated at 1,727.42 km. The figure below and related pie chart shows the total length for each of the four Council road categories.

Figure 5: SMRC Unsealed Road Network

Unsealed Road Network	Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	TOTAL
<i>Cooma-Monaro Length (Km)</i>	-	115.81	184.75	196.76	234.55	731.87
<i>% of Length</i>	0%	16%	25%	27%	32%	100%
<i>Snowy-River Length (Km)</i>	-	36.00	231.39	173.18	53.30	493.87
<i>% of Length</i>	0%	7%	47%	35%	11%	100%
<i>Bombala Length (Km)</i>	-	20.00	130.00	302.00	50.00	502.00
<i>% of Length</i>	0%	4%	26%	60%	10%	100%
<i>Total SMRC Length (Km)</i>	-	171.81	546.14	671.94	337.85	1,727.74
<i>% of Length</i>	0%	10%	32%	39%	20%	100%



5. BUDGET

The Sealed Road and Unsealed Road Maintenance services had a combined operational budget of \$8,330,318 and capital budget for heavy plant of \$1,849,317 in 2016/2017.

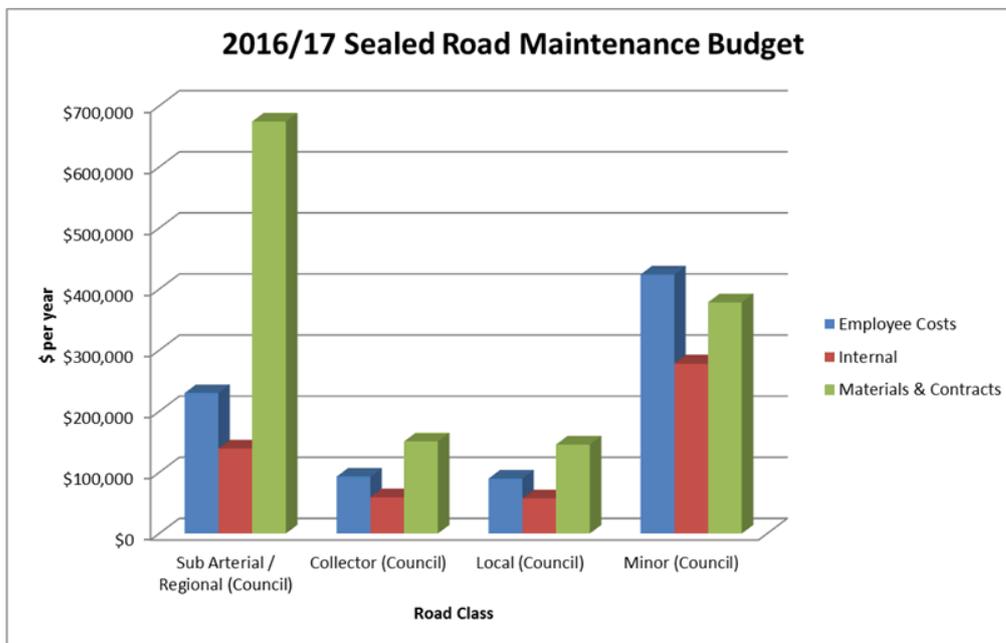
The following table shows the budget breakdown for Sealed and Unsealed Road Maintenance for 2016/2017.

Table 2: 2016/2017 SMRC Sealed and Unsealed Road Maintenance Operating and Capital budget

Service	Budget Item	\$
Sealed Road Maintenance		
	Employee Costs	836,772.46
	Internal	534,139.58
	Materials & Contracts	3,874,734.52
	Total:	5,245,646.56
Unsealed Road Maintenance		
	Employee Costs	840,445.27
	Internal	943,632.33
	Materials & Contracts	1,300,593.86
	Total:	3,084,671.46
Fleet – Heavy Plant		
	Capital	1,849,317

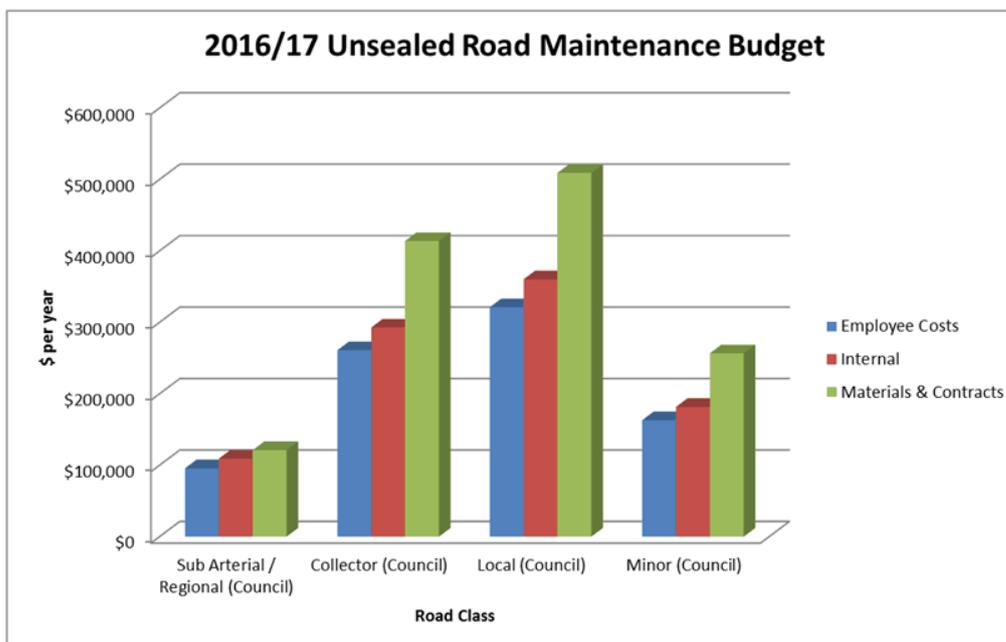
The graphs on the next page summarise the Operating budget for Sealed and Unsealed Road Maintenance per road class for 2016/2017.

Figure 6: 2016/2017 SMRC Sealed Road Maintenance Operating budget



Note: Arterial (RMS) road class contract had a budget of \$2,525,545.22 for 2016/17 Financial Year.

Figure 7: 2016/2017 SMRC Unsealed Road Maintenance Operating budget



6. SERVICE STANDARDS

It was agreed by the Transport Infrastructure (Operations) stakeholders that a review of the current road network classifications would be required to standardise them to make uniform across the Snowy Monaro Regional Council.

This change would enable a consistent set of Service Standards to be determined across the entire road network.

6.1 Sealed Road Maintenance

The classification of roads for Sealed Road Maintenance was determined as follows:

- Arterial (RMS)
- Sub Arterial / Regional (Council)
- Collector (Council)
- Local (Council)
- Minor (Council)

The Service Standards for Sealed Road Maintenance was based on the Roads and Maritime Services (RMS) QA Specification (Ed 1 / Rev 0), dated 26 November 2013.

Arterial (RMS) roads maintained the exact service standards according to the RMS QA Specification.

However, a revised approach to periods from the time of inspection/identification were created for the remaining Council roads but maintained the same set of standards and intervention items.



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Table 3: Sealed Road Service Standards

Sealed Road Maintenance								
Intervention Periods	Subnetwork (SN) ranking		Class					Target Response Time
			Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	
<i>Subnetwork (SN) ranking:</i>	SN 4-6	SN 1-3	SN 4-6	SN 1-3	SN 1-3	SN 1-3	SN 1-3	
<i>From time of inspection/identification:</i>			X	X	X	X	X	(%)
<i>Within trafficable lane:</i>			3.5m	3.5m	3.3m	3.0m	3.0m	
Repair Pothole (201)								
(1) The plan dimension of a pothole or delamination must not exceed:	200 mm	400 mm	X	14 days	14 days	14 days	14 days	100%
(2) The depth of a pothole or delamination must not exceed:	30 mm	50 mm	X	14 days	14 days	14 days	14 days	100%
Repair Pavement Edge (202)								
(1) An edge break must not encroach into the travelled way by more than:	0 mm	150 mm	X	5 days	30 days	30 days	30 days	100%
(2) The depth of an edge drop-off within 0.5 metres of the travelled way must not exceed:	40 mm	60 mm	X	5 days	30 days	30 days	30 days	100%
Repair Wearing Surface (203)								
(1) Rectify localised bleeding or flushing resulting in bitumen pick up on vehicle tyres within:	1 day	2 days	1 day	14 days	30 days	3 mths	6 mths	100%
(2) Rectify localised aggregate stripping and ravelling within:	2 days	5 days	2 days	30 days	3 mths	6 mths	12 mths	100%



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Sealed Road Maintenance								
Intervention Periods	Subnetwork (SN) ranking		Class					Target Response Time
			Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	
<i>Subnetwork (SN) ranking:</i>	SN 4-6	SN 1-3	SN 4-6	SN 1-3	SN 1-3	SN 1-3	SN 1-3	
<i>From time of inspection/identification:</i>			X	X	X	X	X	(%)
<i>Within trafficable lane:</i>			3.5m	3.5m	3.3m	3.0m	3.0m	
Minor Pavement Patch (204)								
(2) The height/depth of an abrupt discontinuity (< 20 square metres) must not exceed:	30 mm	50 mm	X	6 mths	6 mths	12 mths	12 mths	100%
(3) The height/depth of bump or depression (< 20 square metres) must not exceed:	40 mm	60 mm	X	6 mths	6 mths	12 mths	12 mths	100%
(4) The height/depth of a shove or isolated rutting (< 20 square metres) must not exceed:	50 mm	70 mm	X	30 days	30 days	2 mths	2 mths	100%
(5) The area of pavement affected by water ponding must not exceed:	2 square metres	5 square metres	X	30 days	30 days	2 mths	2 mths	100%
Seal Pavement Crack (211)								
(1) Water is entering the pavement and pumping fines.			X	12 mths	12 mths	12 mths	12 mths	100%
(2) Width of transverse, longitudinal and diagonal cracks exceeds 3 millimetres.			X	12 mths	12 mths	12 mths	12 mths	100%



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Sealed Road Maintenance								
Intervention Periods	Subnetwork (SN) ranking		Class				Target Response Time	
			Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)		Minor (Council)
<i>Subnetwork (SN) ranking:</i>	SN 4-6	SN 1-3	SN 4-6	SN 1-3	SN 1-3	SN 1-3	SN 1-3	
<i>From time of inspection/identification:</i>			X	X	X	X	X	(%)
<i>Within trafficable lane:</i>			3.5m	3.5m	3.3m	3.0m	3.0m	
Cross-Stitch Crack or Joint (213)								
(1) Width of longitudinal open joint in rigid pavements exceeds 15 millimetres.			X	12 mths	12 mths	12 mths	12 mths	100%
(2) Width of transverse open joint exceeds 30 millimetres.			X	12 mths	12 mths	12 mths	12 mths	100%
Remove Obstruction and Offensive Litter (301)								
(1) Remove hazardous litter and debris that is likely to cause damage to a motor vehicle or person in a motor vehicle within:	4 hours	4 hours	4 hours	1 day	1 day	3 days	1 week	100%
(2) Remove any litter and debris from blocked drain, pipe/culvert or grates that cause water to pond on the roadway or flooding with potentially to cause property damage within:	4 hours	4 hours	4 hours	1 day	1 day	3 days	1 week	100%
(3) Clear snow banks causing localised water ponding or snow and ice causing a potential driving hazard within:	4 hours	4 hours	4 hours	1 day	1 day	3 days	1 week	100%
(4) Remove offensive litter (e.g. litter producing an unpleasant smell or attracting pests) within:	1 day	2 days	1 day	1 day	1 day	3 days	1 week	100%



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Sealed Road Maintenance								
Intervention Periods	Subnetwork (SN) ranking		Class					Target Response Time
			Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	
<i>Subnetwork (SN) ranking:</i>	SN 4-6	SN 1-3	SN 4-6	SN 1-3	SN 1-3	SN 1-3	SN 1-3	
<i>From time of inspection/identification:</i>			X	X	X	X	X	(%)
<i>Within trafficable lane:</i>			3.5m	3.5m	3.3m	3.0m	3.0m	
Reactive Roadside Maintenance (303)								
(4) Remove trees, overhanging branches and/or broken tree limbs in danger of falling onto the travelled way, pedestrian zone, cycleway or private property within:	1 week	1 week	1 week	2 mths	2 mths	3 mths	6 mths	100%
Control Ground Vegetation (311)								
Control Ground Vegetation (Intervention Guidelines 1-8)			X	2 mths	2 mths	3 mths	6 mths	100%
Trim Tree (312)								
Trim Tree (Intervention Guidelines 1-3)			X	2 mths	2 mths	3 mths	6 mths	100%
Remove Tree (316)								
Remove Tree (Intervention Guidelines 1-3)			X	2 mths	2 mths	3mths	6 mths	100%



Sealed and Unsealed Road Maintenance Deep Dive Report

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Sealed Road Maintenance								
Intervention Periods	Subnetwork (SN) ranking		Class					Target Response Time
			Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	
<i>Subnetwork (SN) ranking:</i>	SN 4-6	SN 1-3	SN 4-6	SN 1-3	SN 1-3	SN 1-3	SN 1-3	
<i>From time of inspection/identification:</i>			X	X	X	X	X	(%)
<i>Within trafficable lane:</i>			3.5m	3.5m	3.3m	3.0m	3.0m	
Collect Roadside Litter and Sweep Roadway (339)								
(2) Presence of debris that reduces skid resistance of the road surface.			X	1 day	1 day	3 mths	7days	100%
(3) Comply with the pavement sweeping schedule in Table M3/A.9 and pavement areas to be swept in Figure M3/A.1.			X	1day	1day	3 days	7days	100%
Snow Clearing Operations (363)								
Snow Clearing Operations (Intervention Guidelines 1-2)			X	4 hours	4 hours	4 hours	4 hours	100%
Renew Surface Drain (511)								
Kerb/Gutter - Repair/Replacement (Intervention Guidelines 1-6)			X	6 mths	6 mths	6 mths	6 mths	100%
Clean Culvert (513)								
(1) Pipe/culvert flow is impeded by any obstruction (e.g. litter and debris) resulting in flow restriction of more than 50 per cent.			X	3 mths	3 mths	6 mths	6 mths	100%



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Sealed Road Maintenance								
Intervention Periods	Subnetwork (SN) ranking		Class					Target Response Time
			Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	
<i>Subnetwork (SN) ranking:</i>	SN 4-6	SN 1-3	SN 4-6	SN 1-3	SN 1-3	SN 1-3	SN 1-3	
<i>From time of inspection/identification:</i>			X	X	X	X	X	(%)
<i>Within trafficable lane:</i>			3.5m	3.5m	3.3m	3.0m	3.0m	
Reactive Traffic Facility Maintenance (601)								
(1) Rectify missing or illegible speed advisory, warning and regulatory signs within:	1 day	4 days	1 day	14 days	14 days	14 days	14 days	100%
(2) Make temporary repairs to safety barriers damaged through vehicular impact within:	3 days	1 week	3 days	1 mth	1 mth	3 mths	3 mths	100%
Maintain Non-Pavement Delineation (611)								
Guide Post Repair/Replacement (Intervention Guidelines 1-10)			X	6 mths	6 mths	12 mths	12 mths	100%
Renew Longitudinal Linemarking (617)								
(1) Lines or segments of lines that do not meet Specification RMS R145.			X	6 mths	6 mths	6 mths	6 mths	100%
(2) Lines or segments of lines that are worn, with no more than 10 per cent of the marking missing in any 300 metres length or consecutive segments if marking according to Specification RMS R141.			X	1 mth	1 mth	3 mths	3 mths	100%

Unsealed Road Maintenance

The classification of roads for Unsealed Road Maintenance was mirrored with Sealed Road Maintenance, with the exception of Arterial (RMS) as there are no RMS roads on the Unsealed Road Network.

- Sub Arterial / Regional (Council)
- Collector (Council)
- Local (Council)
- Minor (Council)

The Service Standards for Unsealed Road Maintenance was based on the Roads and Maritime Services (RMS) QA Specification (Ed 1 / Rev 0), dated 26 November 2013.

However, a revised approach to periods from the time of inspection/identification were created for the remaining Council roads but maintained the same set of standards and intervention items.



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Table 4: Unsealed Road Service Standards

Unsealed Road Maintenance							
Intervention Periods	Subnetwork (SN) ranking		Class				Target Response Time
			Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	
<i>Subnetwork (SN) ranking:</i>	SN 4-6	SN 1-3	SN 1-3	SN 1-3	SN 1-3	SN 1-3	
<i>From time of inspection/identification:</i>			X	X	X	X	(%)
<i>Within trafficable lane:</i>			3.5m	3.3m	3.0m	3.0m	
Repair Pothole (201)							
The plan dimension of a pothole must not exceed	200 mm	400 mm	14 days	14 days	28 days	35 days	100%
The depth of a pothole must not exceed:	30 mm	50 mm	14 days	14 days	28 days	35 days	100%
Remove Obstruction and Offensive Litter (301)							
Remove hazardous litter and debris that is likely to cause damage to a motor vehicle or person in a motor vehicle within:	4 hours	4 hours	1 day	1 day	3 days	1 week	100%
Remove any litter and debris from blocked drain, pipe/culvert or grates that cause water to pond on the roadway or flooding with potentially to cause property damage within:	4 hours	4 hours	1 day	1 day	3 days	1 week	100%
Clear snow banks causing localised water ponding or snow and ice causing a potential driving hazard within:	4 hours	4 hours	1 day	1 day	3 days	1 week	100%
Remove offensive litter (e.g. litter producing an unpleasant smell or attracting pests) within:	1 day	2 days	1 day	1 day	3 days	1 week	100%
Reactive Roadside Maintenance (303)							
(4) Remove trees, overhanging branches and/or broken tree limbs in danger of falling onto the travelled way, pedestrian zone, cycleway or private property within:	1 week	1 week	2 mths	2 mths	3 mths	6 mths	100%



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Unsealed Road Maintenance							
Intervention Periods	Subnetwork (SN) ranking		Class				Target Response Time
			Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	
<i>Subnetwork (SN) ranking:</i>	SN 4-6	SN 1-3	SN 1-3	SN 1-3	SN 1-3	SN 1-3	
<i>From time of inspection/identification:</i>			X	X	X	X	(%)
<i>Within trafficable lane:</i>			3.5m	3.3m	3.0m	3.0m	
Control Ground Vegetation (311)							
Control Ground Vegetation (Intervention Guidelines 1-8)			2 mths	2 mths	3 mths	6 mths	100%
Trim Tree (312)							
Trim Tree (Intervention Guidelines 1-3)			2 mths	2 mths	3 mths	6 mths	100%
Remove Tree (316)							
Remove Tree (Intervention Guidelines 1-3)			2 mths	2 mths	3 mths	6 mths	100%
Clean Culvert (513)							
(1) Pipe/culvert flow is impeded by any obstruction (e.g. litter and debris) resulting in flow restriction of more than 50 per cent			3 mths	3 mths	6 mths	6 mths	100%
Reactive Traffic Facility Maintenance (601)							
Rectify missing or illegible speed advisory, warning and regulatory signs within:	1 day	4 days	14 days	14 days	14 days	14 days	100%
Make temporary repairs to safety barriers damaged through vehicular impact within:	3 days	1 week	1 mth	1 mth	3 mths	3 mths	100%
Maintain Non-Pavement Delineation (611)							
Guide Post Repair/Replacement (Intervention Guidelines 1-10)			6 mths	6 mths	12 mths	12 mths	100%

6.1.1 Unsealed Road Maintenance Gravel Re-Sheeting Service Levels

Gravel re-sheeting is a periodic maintenance activity where a layer of gravel material is applied over an existing length and width of unsealed road. Resheeting is undertaken to restore the thickness of the pavement in order to give adequate support to all vehicles using the unsealed road.

The Gravel re-sheeting service levels were discussed and a new nominated Frequency for SMRC was decided as follows.

Table 5: Gravel Re-sheeting Service Levels

Gravel re-sheeting:	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)
Nominated Frequency for SMRC:	20 years	30 years	100 years	100 years
or as required				

6.1.2 Unsealed Road Maintenance Grading Service Levels

After the Unsealed Road Classifications were determined, the Maintenance Grading Service Levels were nominated from reviewing the current Maintenance Grading schedules from the previous Cooma-Monaro, Snowy River and Bombala Councils.

The Snowy Monaro Regional Council (SMRC) nominated frequencies are detailed in the table below and can be compared to the previous Council area frequencies.

Table 6: Maintenance Grading Service Levels

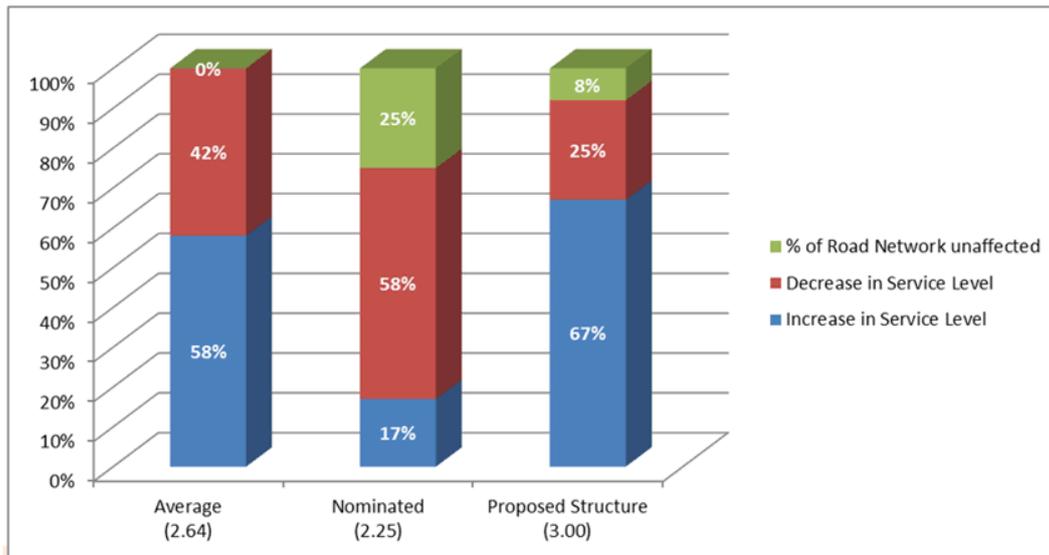
Maintenance Grading:	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)
<i>Current Frequency for Cooma:</i>	1.00	1.30	1.00	0.67
<i>Current Frequency for Snowy:</i>	2.00	1.00	0.50	0.50
<i>Current Frequency for Bombala:</i>	4.00	1.00	1.00	0.50
Nominated Frequency for SMRC:	2.00	1.00	0.67	0.50

Key:									
Frequency (# of grades per 12 month cycle)	4.00	3.00	2.40	2.00	1.33	1.00	0.80	0.67	0.50
Frequency (# of grades per month)	3 mths	4 mths	5 mths	6 mths	9 mths	12 mths	15 mths	18 mths	24 mths

By analysing the number of Maintenance Grading Crews and nominated maintenance grading frequencies we were able to determine the % of Road Network which would be affected.

The graph below represents the Average (2.64 Maintenance Grading Crews), Nominated (2.25 Maintenance Grading Crews) and the Proposed Structure (3.00 Maintenance Grading Crews).

Figure 8: Maintenance Grading Crews and Service Levels



In determining how many Maintenance Grading Crews were required to deliver the Maintenance Grading Schedules we needed specific criteria to calculate; the following assumptions were used.

Table 7: Maintenance Grading Assumptions

Maintenance Grading Assumptions
3kms was the agreed number of achievable km for a Heavy Maintenance Grade per day
220 days was the agreed number of working days per year
1,727.74kms was the agreed km in the Unsealed Road Network (SMRC) comprising of; 171.81kms - Sub Arterial / Regional (Council) 546.14kms - Collector (Council) 671.94kms - Local (Council) 337.85kms - Minor (Council)
The number of Heavy Maintenance Grades per year varied to deliver the schedule



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Using the above criteria we calculated the following Heavy Maintenance Grading schedules and determined the number of Maintenance Grading Crews required to deliver the nominated service levels.

Table 8: Heavy Maintenance Grading Calculations (Average, Nominated and Proposed Structure)

Maintenance Grading - AVERAGE:							
	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	Frequency (# of grades per 12 month cycle)	Frequency (# of grades per month)	
					4.00	3 months	
	Previous frequency for Cooma-Monaro:	1.00	1.30	1.00	0.67	3.00	4 months
	Previous frequency for Snowy River:	2.00	1.00	0.50	0.50	2.40	5 months
	Previous frequency for Bombala:	4.00	1.00	1.00	0.50	2.00	6 months
	Average Frequency for Snowy Monaro Regional Council (SMRC):	2.33	1.10	0.83	0.56	1.33	9 months
2.64	Grading Crews					1.00	12 months
220	Days available to work per year (per team)					0.80	15 months
581	Total available days to work per year (all teams)					0.67	18 months
	Agreed Kms to Grade (per day)	3.00	3.00	3.00	3.00	0.50	24 months
	Total Kms in Unsealed Road Network (SMRC)	171.81	546.14	671.94	337.85		
	Frequency # of Grades per year (Heavy Maintenance Grade)	2.33	1.10	0.83	0.56		
	(2) Available / (Unavailable) # of days for ALL Grading Crews per year	400.32	600.75	557.71	189.20		
583	Total # of days required to deliver Heavy Maintenance Grade to match schedule	133.44	200.25	185.90	63.07		
	(1) Available / (Unavailable) # of days for EACH Grading Crews per year						
	Cost Per Grading Crew of Internal Labour & Plant (\$):	438,263.89					
	Total Cost for Grading Crews identified from above:	\$ 1,157,016.67					
	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	% of Road Network affected		
	Average Frequency for Heavy Maintenance Grade:	2.33	1.10	0.83	0.56	58%	Increase
	Previous frequency for Cooma-Monaro:	1.00	1.30	1.00	0.67	42%	Reduction
	Previous frequency for Snowy River:	1.33	0.20	0.17	0.11	0%	Unaffected
	Previous frequency for Snowy River:	2.00	1.00	0.50	0.50	100%	Total
	Previous frequency for Bombala:	0.33	0.10	0.33	0.06		
	Previous frequency for Bombala:	4.00	1.00	1.00	0.50		
		1.67	0.10	0.17	0.06		
<i>If accepting the Average frequency; GREEN indicates an increased service and RED indicates a reduction in service</i>							
Maintenance Grading - NOMINATED:							
	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	Frequency (# of grades per 12 month cycle)	Frequency (# of grades per month)	
					4.00	3 months	
	Nominated frequency for Heavy Maintenance Grade:	2.00	1.00	0.67	0.50	3.00	4 months
	Previous frequency for Cooma-Monaro:	1.00	1.30	1.00	0.67	2.40	5 months
	Previous frequency for Snowy River:	2.00	1.00	0.50	0.50	2.00	6 months
	Previous frequency for Bombala:	4.00	1.00	1.00	0.50	1.33	9 months
	Average Frequency for Snowy Monaro Regional Council (SMRC):	2.33	1.10	0.83	0.56	1.00	12 months
2.25	Grading Crews					0.80	15 months
220	Days available to work per year (per team)					0.67	18 months
495	Total available days to work per year (all teams)					0.50	24 months
	Agreed Kms to Grade (per day)	3.00	3.00	3.00	3.00		
	Total Kms in Unsealed Road Network (SMRC)	171.81	546.14	671.94	337.85		
	Frequency # of Grades per year (Heavy Maintenance Grade)	2.00	1.00	0.67	0.50		
	(8) Available / (Unavailable) # of days for ALL Grading Crews per year	343.62	546.14	450.20	168.93		
503	Total # of days required to deliver Heavy Maintenance Grade to match schedule	114.54	182.05	150.07	56.31		
	(4) Available / (Unavailable) # of days for EACH Grading Crews per year						
	Cost Per Grading Crew of Internal Labour & Plant (\$):	438,263.89					
	Total Cost for Grading Crews identified from above:	\$ 986,093.75					
	(Increase) / Decrease from previous 2.64 teams:	\$ 170,922.92					
	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	% of Road Network affected		
	Nominated frequency for Heavy Maintenance Grade:	2.00	1.00	0.67	0.50	17%	Increase
	Previous frequency for Cooma-Monaro:	1.00	1.30	1.00	0.67	58%	Reduction
	Previous frequency for Snowy River:	1.00	0.30	0.33	0.17	25%	Unaffected
	Previous frequency for Snowy River:	2.00	1.00	0.50	0.50	100%	Total
	Previous frequency for Bombala:	-	-	0.17	0.17		
	Previous frequency for Bombala:	4.00	1.00	1.00	0.50		
		2.00	-	0.33	0.17		
<i>If accepting the Average frequency; GREEN indicates an increased service and RED indicates a reduction in service</i>							



Sealed and Unsealed Road Maintenance Deep Dive Report

June 2017

Maintenance Grading - PROPOSED STRUCTURE:						
	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	Frequency (# of grades per 12 month cycle)	Frequency (# of grades per month)
Nominated frequency for Heavy Maintenance Grade:	2.00	1.00	0.67	0.50	4.00	3 months
Previous frequency for Cooma-Monaro:	1.00	1.30	1.00	0.67	3.00	4 months
Previous frequency for Snowy River:	2.00	1.00	0.50	0.50	2.40	5 months
Previous frequency for Bombala:	4.00	1.00	1.00	0.50	2.00	6 months
Average Frequency for Snowy Monaro Regional Council (SMRC):	2.33	1.10	0.83	0.56	1.33	9 months
3 Grading Crews					1.00	12 months
220 Days available to work per year (per team)					0.80	15 months
660 Total available days to work per year (all teams)					0.67	18 months
Agreed Kms to Grade (per day)	3.00	3.00	3.00	3.00	0.50	24 months
Total Kms in Unsealed Road Network (SMRC)	171.81	546.14	671.94	337.85		
Frequency # of Grades per year (Heavy Maintenance Grade)	3.00	1.33	0.80	0.67		
669 Total # of days required to deliver Heavy Maintenance Grade to match schedule	515.43	726.37	537.55	226.36		
(9) Available / (Unavailable) # of days for ALL Grading Crews per year	171.81	242.12	179.18	75.45		
(3) Available / (Unavailable) # of days for EACH Grading Crews per year						
Cost Per Grading Crew of Internal Labour & Plant (\$):	438,263.89					
Total Cost for Grading Crews Identified from above:	\$ 1,314,791.67					
(Increase) / Decrease from previous 2.25 teams:	-328,697.92					
	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	% of Road Network affected	
Proposed Structure frequency for Heavy Maintenance Grade:	3.00	1.33	0.80	0.67	67%	Increase
Previous frequency for Cooma-Monaro:	1.00	1.30	1.00	0.67	25%	Reduction
Previous frequency for Snowy River:	2.00	0.03	0.20	-	8%	Unaffected
Previous frequency for Snowy River:	2.00	1.00	0.50	0.50	100%	Total
Previous frequency for Snowy River:	1.00	0.33	0.30	0.17		
Previous frequency for Bombala:	4.00	1.00	1.00	0.50		
Previous frequency for Bombala:	1.00	0.33	0.20	0.17		
If accepting the Average frequency, GREEN indicates an increased service and RED indicates a reduction in service						

7. SERVICE DELIVERY

Sealed and Unsealed Roads Maintenance operations are delivered with a combination of internal resources and external contracts for Plant (Dry Hire) and, Plant and Labour (Wet Hire).

7.1 Sealed Road Maintenance

The majority of the sealed road maintenance program is carried out with internal work crews.

Contracting is undertaken for the following intervention items:

- Heavy patching (Over 20m length x 3-3.5m width)
- Reactive Traffic Facility maintenance (signs)
- Tree trimming
- Maintaining non pavement delineation (guide posts)
- Line marking
- Seal pavement cracking

The following table summarises the number of staff and cost of sealed road maintenance (2016/17 Budget)

Table 9: Total Road Network (Sealed) 2016/17 Budget

Road Network (Sealed):	Arterial (RMS)	Sub Arterial / Regional (Council)	Collector (Council)	Local (Council)	Minor (Council)	Total
Employee Costs	-	229,851.57	93,012.86	89,907.38	424,000.65	836,772.46
Internal	-	138,977.75	59,312.47	57,332.17	278,517.19	534,139.58
Materials & Contracts	2,525,545.22	674,318.21	150,722.69	145,690.42	378,457.98	3,874,734.52
Total	\$ 2,525,545.22	\$ 1,043,147.53	\$ 303,048.02	\$ 292,929.96	\$ 1,080,975.83	\$ 5,245,646.56

After analysing the road network data there is a substantial difference in our combined sealed and unsealed road networks. There are currently 1,006.39km of sealed road network and in an attempt to increase this number over time, we have identified the following perceived advantages by sealing the existing unsealed roads:

- Overall improvement with accessibility & safety for road users
- Improved environmental preservation (i.e. Dust reduction)
- Reduced travel time
- Flood resilience/ reduced flood damage
- Delivering on political pressures from residents
- Improved service levels
- Reduced potential of accidents
- Minimise liability of roads not meeting legislative requirements

7.2 Unsealed Road Maintenance

After reviewing the existing service standards of Cooma-Monaro, Snowy River and Bombala it is proposed there are three different, but harmonised service delivery options for the Unsealed Road network which currently stands at 1,727.74km in SMRC.

7.2.1 Internal Unsealed Road Maintenance – Labour & Plant \$

The number of Maintenance Grading Crews required, include an associated cost to deliver the Heavy Maintenance Grade schedule. The following variations of Internal – Labour & Plant costs are highlighted in the table below:

Table 10: Total Cost of Labour and Plant per number of Maintenance Grading Crews

	Average	Nominated	Proposed Structure
Number of Grading teams	2.64	2.25	3.00
Internal - Labour & Plant (\$)	\$ 1,157,016.67	\$ 986,093.76	\$ 1,314,791.68

7.2.2 Internal vs External Unsealed Road Maintenance

As part of the analysis we established the financial variance in delivering Maintenance Grading via Internal Delivery versus External Wet Hire.

We used the following information to determine the cost of each Maintenance Grading Crew;

Table 11: Internal vs External Labour & Plant minimum requirements

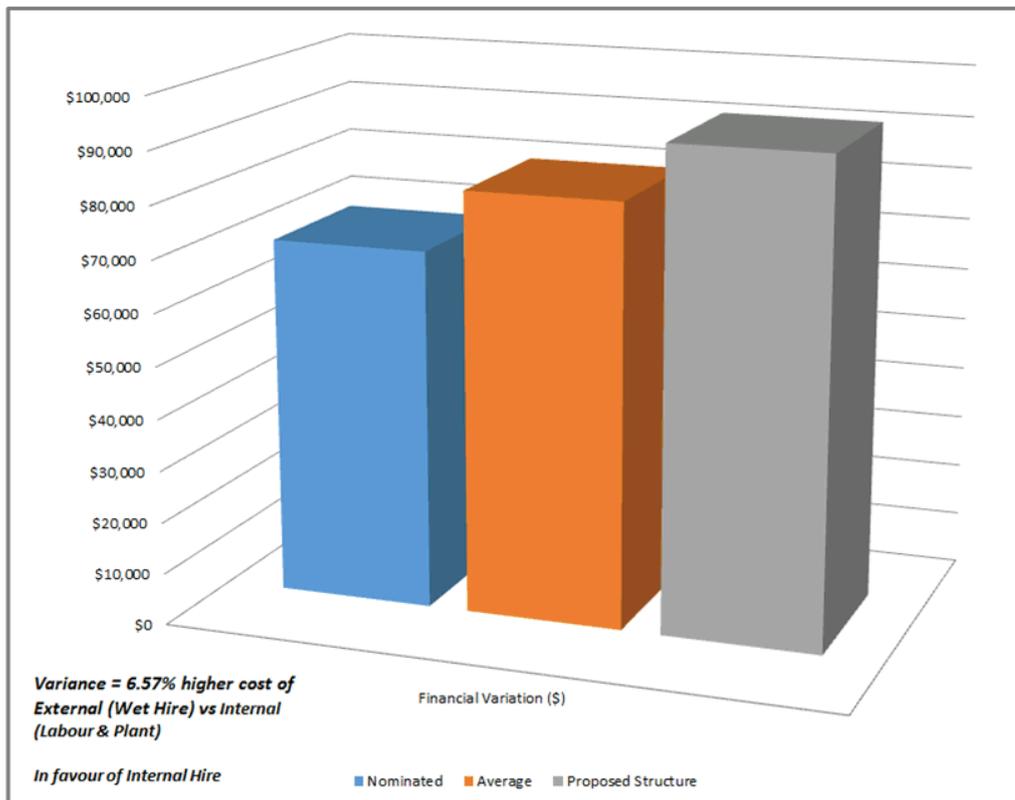
Internal - Labour & Plant	
Plant Item	Internal Labour FTE
Water Cart	Plant Operator
Grader	Plant Operator
Roller (Maintenance Grading)	Labourer
External	
An average daily Wet Hire rate with the same plant specifications (Water Carts, Graders and Rollers)	

The table and graph below shows the cost variance between the number of grading teams for internal – labour and plant vs external (wet hire).

Table 12: Maintenance Grading Cost Variation of Internal Delivery versus External Wet Hire

			Nominated		Average	Proposed Structure
Number of Grading teams:	1.00	2.00	2.25	2.50	2.64	3.00
Internal - Labour & Plant (\$)	438,263.89	876,527.78	986,093.76	1,095,659.73	1,157,016.67	1,314,791.68
External - Wet Hire (\$)	469,084.75	938,169.51	1,055,440.70	1,172,711.89	1,238,383.75	1,407,254.26
Financial Variation (\$)	\$ 30,820.86	\$ 61,641.72	\$ 69,346.94	\$ 77,052.16	\$ 81,367.08	\$ 92,462.59

Figure 9: Maintenance Grading Cost Variation of Internal Delivery versus External Wet Hire



8. PLANT ANALYSIS

As advised by the Transport Infrastructure (Operations) Business Unit at our initial workshops we determined the plant required to undertake all maintenance interventions Sealed and Unsealed. These interventions as previously mentioned were formed around the newly agreed Service Standards.

8.1 Plant Specifications

Each plant item associated with Roads Maintenance was grouped under easily identifiable classifications and listed underneath plant identification groups with comprehensive plant information.

Table 13: Plant Analysis – Roads Maintenance

Plant Analysis - Roads Maintenance		
Item #	Data Captured	Calculations/Assumptions/Analysis
1	Plant Description/Details	Brand, Make, Model, Rego etc.
2	Plant ID	Plant asset number/ID recorded
3	Depot	Previous Council Depot location
4	Plant Notes	Specific plant item information/notes
5	Acquisition Date	Purchase date of plant, Missing dates for Bombala plant where items were acquired pre 2013.
6	Acquisition Cost	Acquisition cost of each plant item
7	Disposal Date	Only applicable if asset was disposed in 2016/17 Financial Year
8	Closing Written Down Value (CWDV)	As at 30/06/2016. Depreciation calculations completed at 30 June and period of data capture was before 30 June 2017 date, therefore recorded 2015/16 CWDV per plant item.
9	Condition Rating	Plant items were rated by three separate technicians from Cooma, Snowy and Bombala
10	Life to Date Hours (LTD)	Bombala LTD hours are inconsistent with what is recorded under YTD hours LTD hours in Cooma is skewed by duplicated plant numbers (possibly other depots also) Majority of LTD hours only captured on acquisition date even if the item was second hand (not a true reflection of LTD hours)
11	Total Available Hours (per day)	6 hours working time per day
12	Total Available Days (per year)	220 days per year = 365 days less: flex days, weekends, public holidays, annual union picnic day and 2 weeks over Christmas. Assumption that other Annual Leave days are scheduled and managed to ensure workflow is maintained among work crews
13	Total Available Hours (per year)	1360 hours per year = Total Available Hours (per day) x Total Available Days (per year)
14	Hire of Plant (rate per hour)	As per fleet plant hire rates from 2016/2017 records
15	Year to Date (YTD) Plant Hours	01/07/2016 to 31/03/2017 and projected last quarter based on previous 9 months
16	Year to Date (YTD) Plant Utilisation (%)	Total Available Hours (per year) / Year to Date (YTD) Plant Hours
17	Perceived Utilisation for Roads Maintenance (%)	No actual Utilisation data for Roads Maintenance. This perception was obtained from various stakeholders
18	Year to Date (YTD) Roads Maintenance Utilisation (%)	Year to Date (YTD) Plant Utilisation (%) x Perceived Utilisation for Roads Maintenance (%)
19	Year to Date (YTD) OTHER Utilisation (%)	Year to Date (YTD) Plant Utilisation (%) less: Year to Date (YTD) Roads Maintenance Utilisation (%)
20	Income Generated to Fleet	Hire of Plant (rate per hour) x Year to Date (YTD) Plant Hours
21	Maintenance Expenditure	01/07/2016 to 31/03/2017 and projected last quarter based on previous 9 months
22	Current Age of Plant	30/06/2017 less: Acquisition Date

Plant Analysis - Roads Maintenance		
Item #	Data Captured	Calculations/Assumptions/Analysis
23	Calculated Maintenance Cost	Calculated over the life of the plant; the yearly average contribution of maintenance expenditure using 2% CPI increase/decrease
24	Calculated Hire Rate	Calculated over the life of the plant; the yearly average Internal hire rate using 2% CPI increase/decrease
25	Proposed Replacement Date	Acquired from 10 year replacement plan Where no acquisition date and no proposed replacement date given, age of plant and replacement date have been determined as follows; age (average life expectancy) and replacement date (2026/2027)
26	Proposed Acquisition Cost	Acquired from 10 year replacement plan or original acquisition cost plus 2% CPI per annum calculated up until proposed replacement date
27	The Variance	The Variance = Year to Date (YTD) Plant Hours x Hire of Plant (rate per hour) (life of plant average) - Maintenance Expenditure (life of plant average)
28	Life Expectancy of Plant	Proposed Replacement Date - Acquisition Date Where there is no acquisition date mentioned we have gone of assumed acquisition date. Where there is no proposed Replacement date we have gone of average life expectancy of plant.
29	Yearly Replacement Contribution Cost	Proposed Acquisition Cost / Life Expectancy of plant (years) = cost contribution per year to fully cover capital expenditure
30	Break Even	The Variance - Yearly Replacement Contribution Cost = Break Even (to determine if you are currently covering operational expenses and proposed replacement of plant item)
31	External Dry Hire Rates (per hour)	Per plant category; utilising all available contract rates as an average from the Plant Truck Hire Rates 2015-2017
32	External Wet Hire Rates (per hour)	Per plant category; utilising all available contract rates as an average from the Plant Truck Hire Rates 2015-2017
33	Yearly External Dry Hire Expenditure (\$)	Unable to obtain any detailed data; captured at high level (materials and contracts only)
34	Yearly External Wet Hire Expenditure (\$)	Unable to obtain any detailed data; captured at high level (materials and contracts only)
35	Total Yearly External (Wet and Dry Hire) (\$)	Unable to obtain any detailed data; captured at high level (materials and contracts only)

8.2 Plant Condition Rating

Following workshops with the Transport Infrastructure (Operations) business unit it was agreed to use the following Condition Rating Criteria to standardise the condition rating of all plant items moving forward.

The table below is the plant condition rating criteria used for the Deep Dive Service Review analysis.

Table 14: Plant Condition Rating Criteria

Condition (1 excellent – 5 very poor)	Description	% Remaining Life
1	Excellent (as new) – sound condition, well maintained, no defects	80-100%
2	Good – minor surface deterioration, no significant impact on asset integrity or safety	60-80%
3	Average – functionally sound, deterioration beginning to impact on integrity and safety	40-60%
4	Poor – significant defects, marked deterioration in asset integrity and safety	20-40%
5	Very poor – failure or near failure	0-20%

After initial attempts to standardise condition rating of plant by Fleet Management, it was determined that the inclusion of the word ‘Safety’ skewed the true representation of plant condition rating.

At the final workshop, it was agreed that the word ‘Safety’ be removed from the condition rating criteria.

The table below demonstrates the plant condition rating criteria, which is recommended to be adopted by Transport Infrastructure (Operations).

Table 15: Plant Condition Rating Criteria with the removal of the word ‘Safety’

Condition (1 excellent – 5 very poor)	Description	% Remaining Life
1	Excellent (as new) – sound condition, well maintained, no defects	80-100%
2	Good – minor surface deterioration, no significant impact on asset integrity or safety	60-80%
3	Average – functionally sound, deterioration beginning to impact on integrity and safety	40-60%
4	Poor – significant defects, marked deterioration in asset integrity and safety	20-40%
5	Very poor – failure or near failure	0-20%

Refer to Appendix B for condition rating by plant item.

8.3 Plant Utilisation

As part of the Sealed and Unsealed Roads Maintenance Deep Dive Service Review, a total of 64 plant items were recorded for analysis.

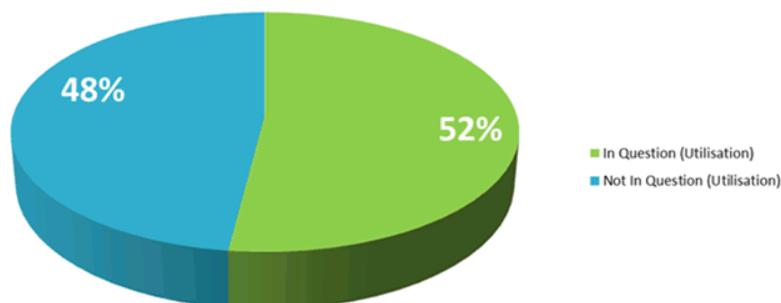
Of the 64 plant items, 56 were captured with extensive data collection and a total of 29 (52%) were identified by Group Manager Transport Infrastructure (Operations) to be in question.

The identification of plant items was considered by reviewing plant groups for under or over utilisation of individual plant and whether it was replaced or due for replacement in the 2016/17 year.

While the remaining 27 (48%) of plant items were not determined to be in question, the detailed table in Appendix B represents the total findings of all plant, including the 29 identified.

Figure 10: Roads Maintenance Plant Fleet – Plant in Question (Utilisation)

Roads Maintenance Plant Fleet



8.3.1 Perceived Average Utilisation

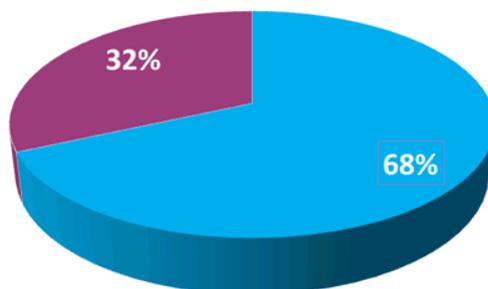
Of the 56 plant items captured with extensive data collection, it was perceived that an average utilisation rate of 68% would be used on Roads Maintenance per plant item with the balance (32%) made up from utilisation by other business units or sitting idle.

The graph below shows the total perceived average utilisation derived from estimates provided by Transport Infrastructure (Operations).

Figure 11: Total Perceived Average Utilisation % 2016/17

Total Perceived Average Utilisation % 2016/17

■ Roads Maintenance ■ Other (eg: Parks & Gardens, Construction or Idle)



8.3.2 Actual Average Utilisation

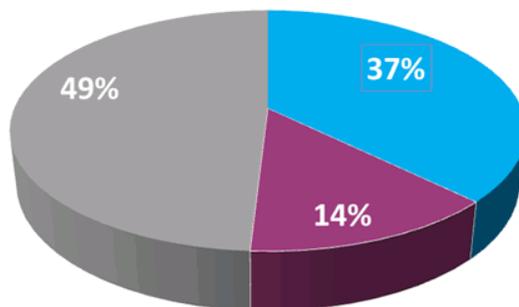
It was determined that an actual average of 51% of plant was being utilised, made up either by Roads Maintenance (37%) or other business units e.g.; Parks & Gardens or Construction (14%).

The remaining 49% is considered unutilised for the duration of 2016/2017 Financial Year.

Figure 12: Total Actual Average Utilisation % 2016/17

Total Actual Average Utilisation % 2016/17

■ Roads Maintenance ■ Other (eg: Parks & Gardens, Construction) ■ Unutilised



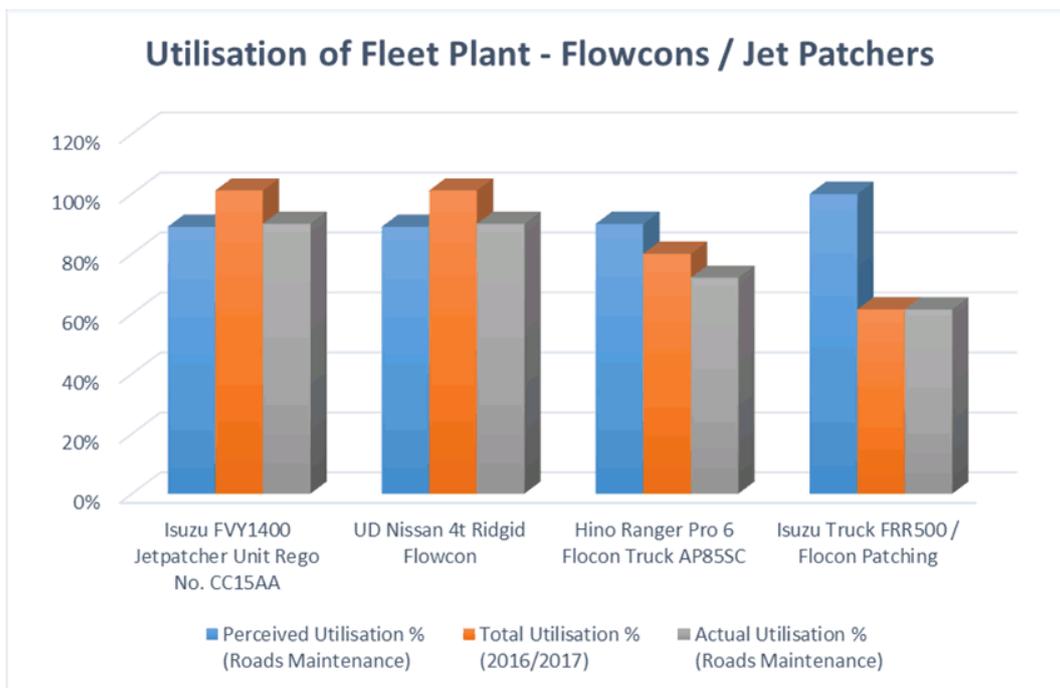
8.3.3 Under of Over Utilisation of Fleet Plant

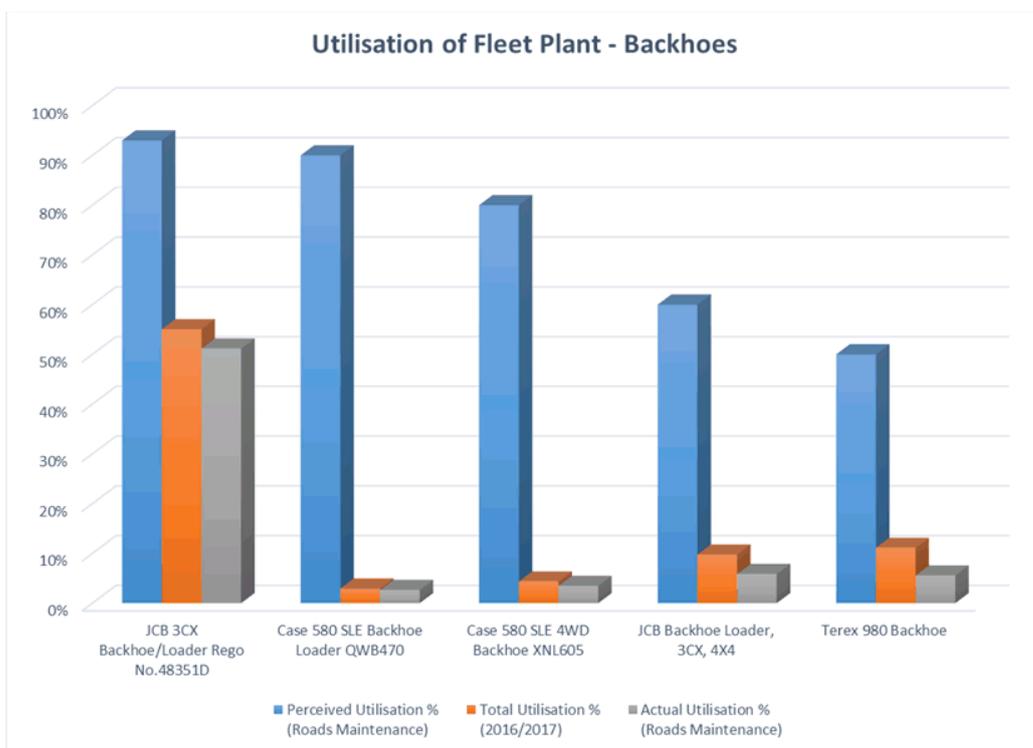
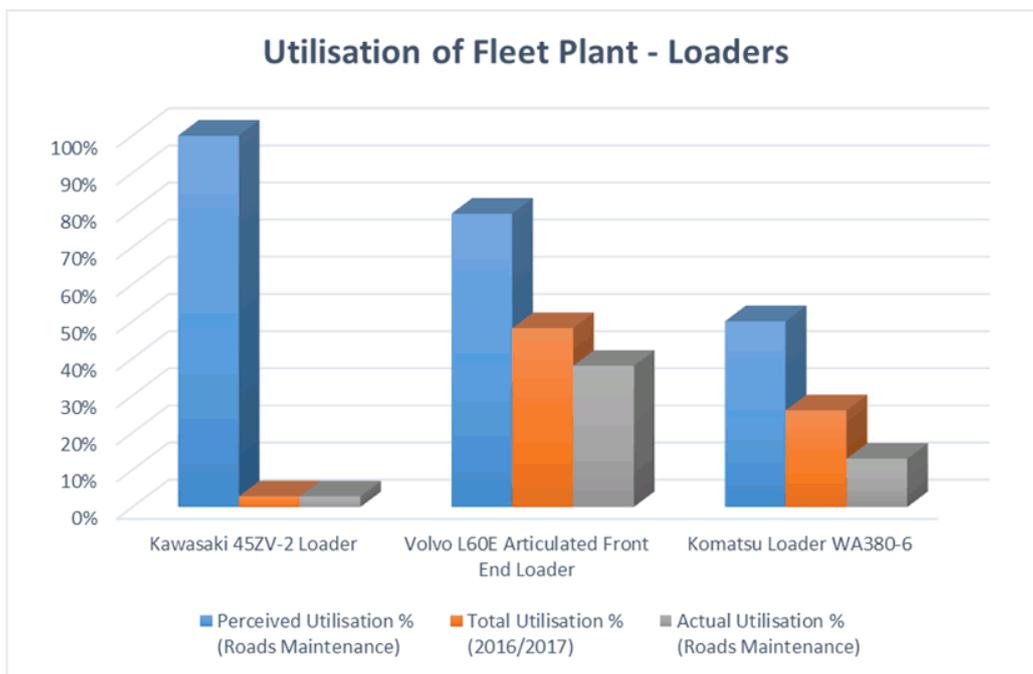
By reviewing the available hours per year of 1320 per plant item (220 days per year x 6 hours per day) we were able to identify the under and over utilisation of plant.

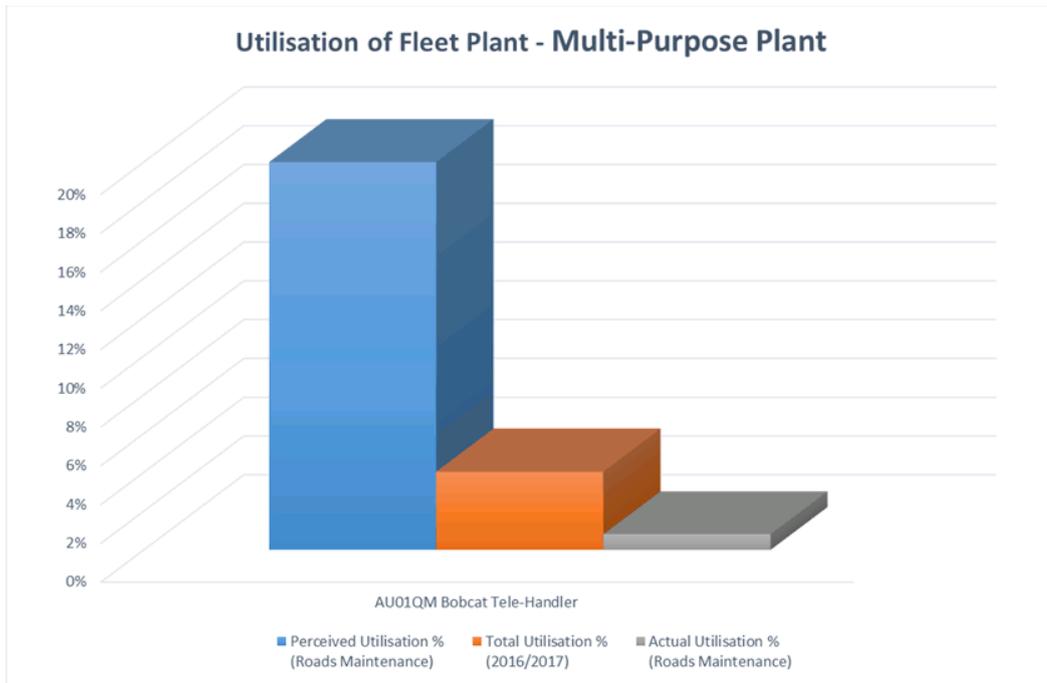
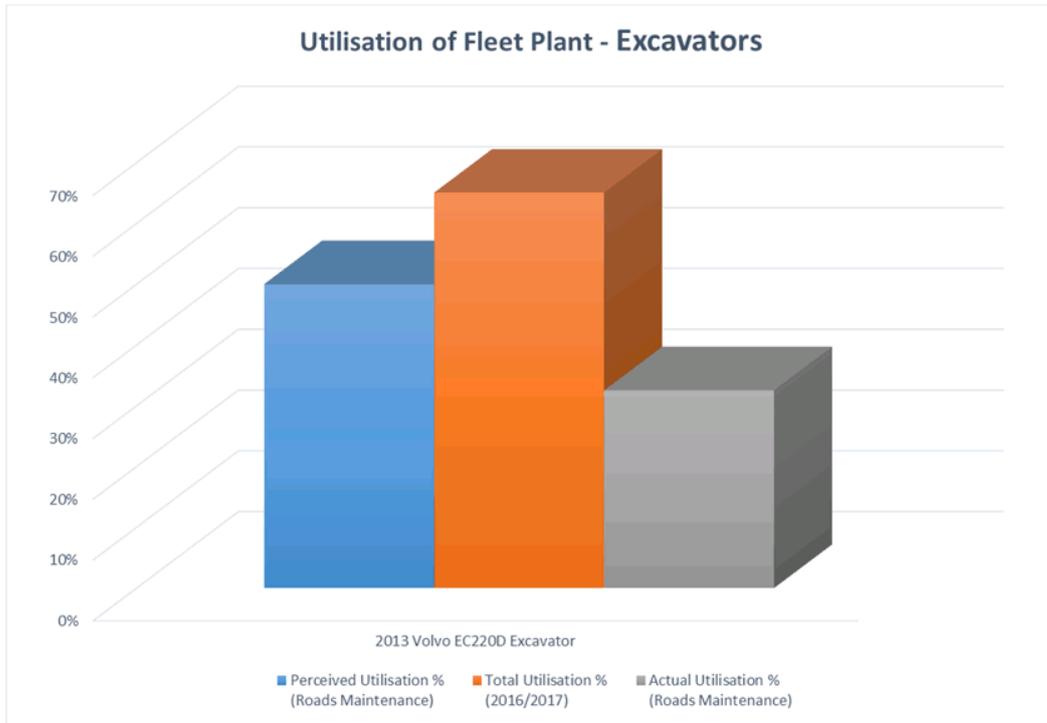
Utilisation of each plant item was determined from the Year to Date (YTD) 2016/2017 Plant Hire records. Data was captured from 1 July 2016 to 31 March 2017 and a projection was made to 30 June 2017 based on the 9 months prior.

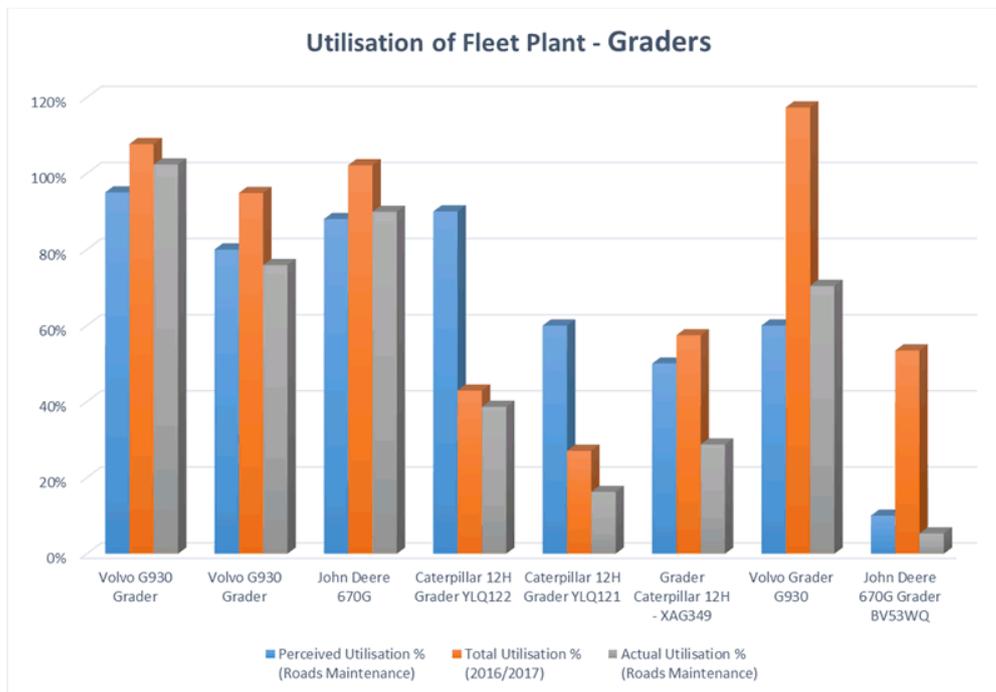
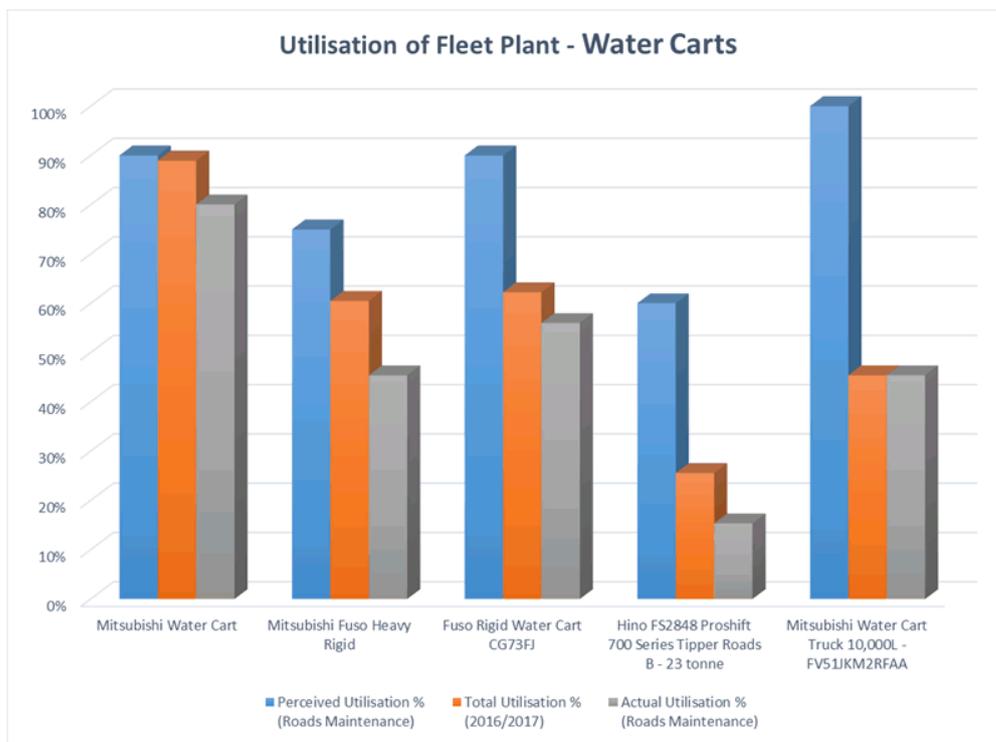
The pattern of underutilised plant (49%) can be evidently seen through the variances of Total Utilisation %. The following graphs illustrate this under or over utilisation of each plant item. They have been recorded per plant group.

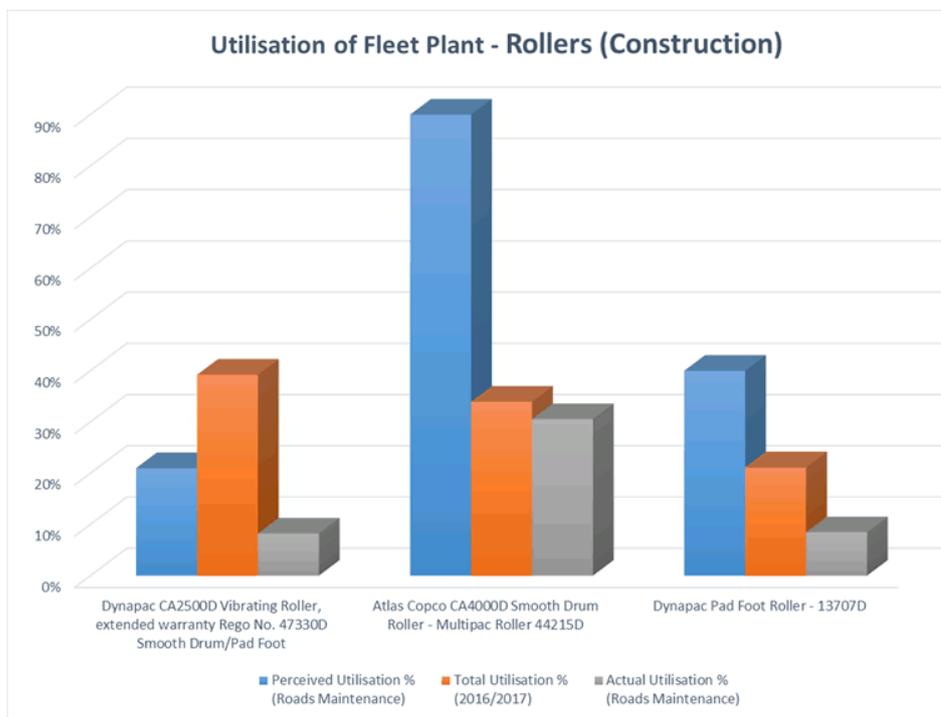
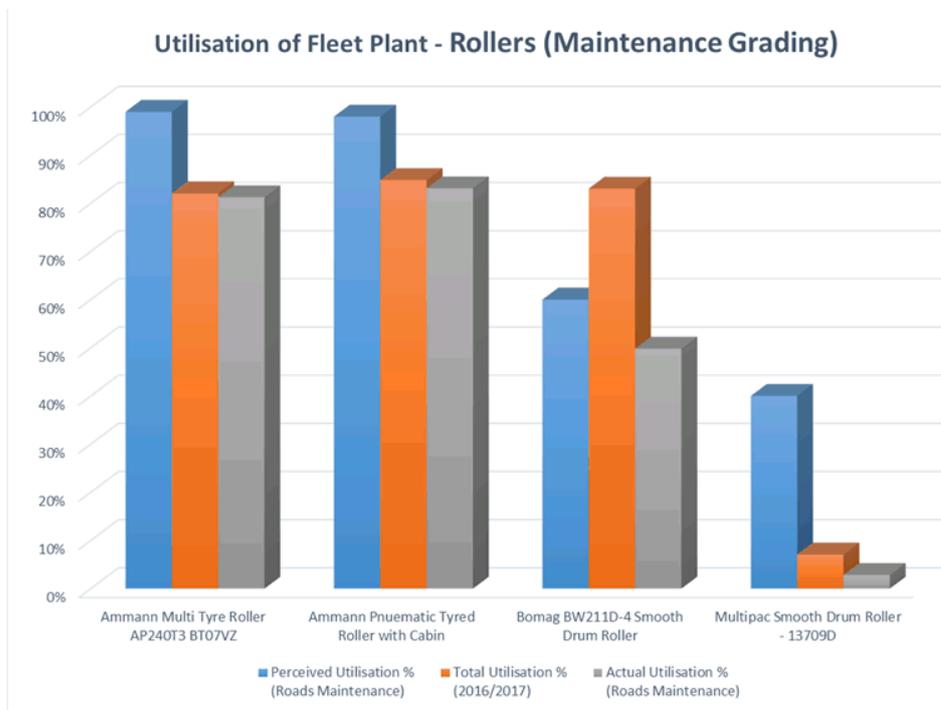
Figure 13: Utilisation of Fleet Plant in 2016/17 (per plant group - ALL)

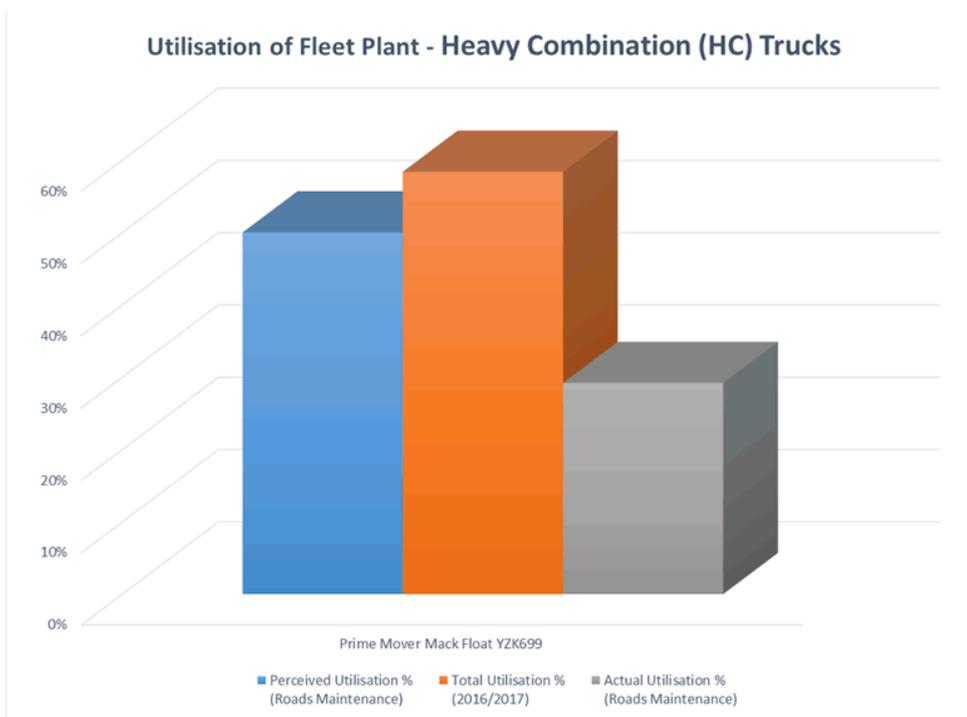
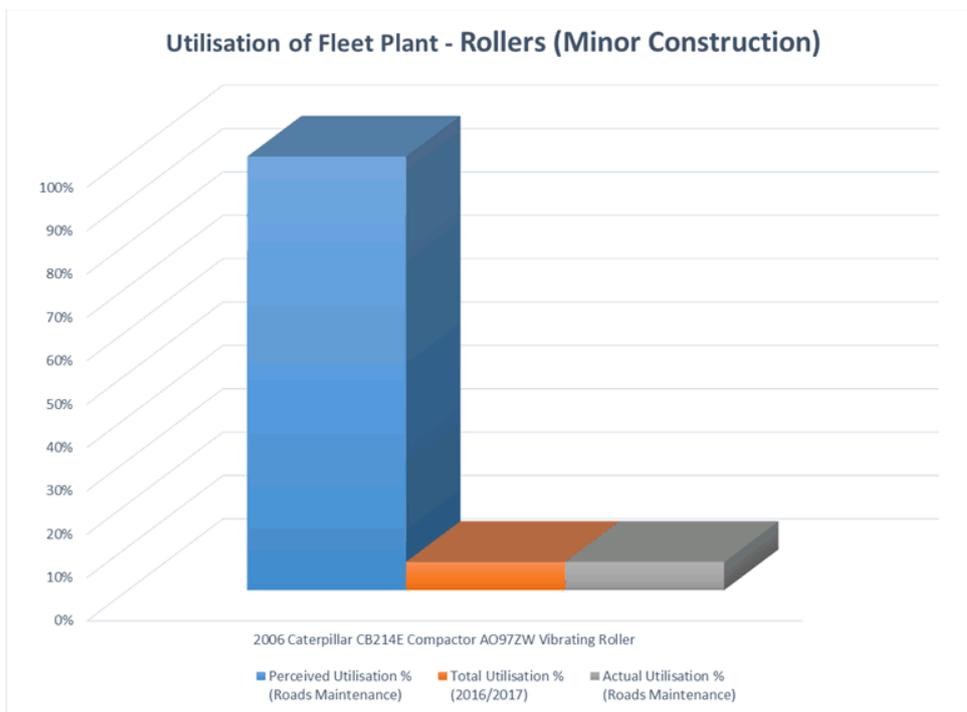


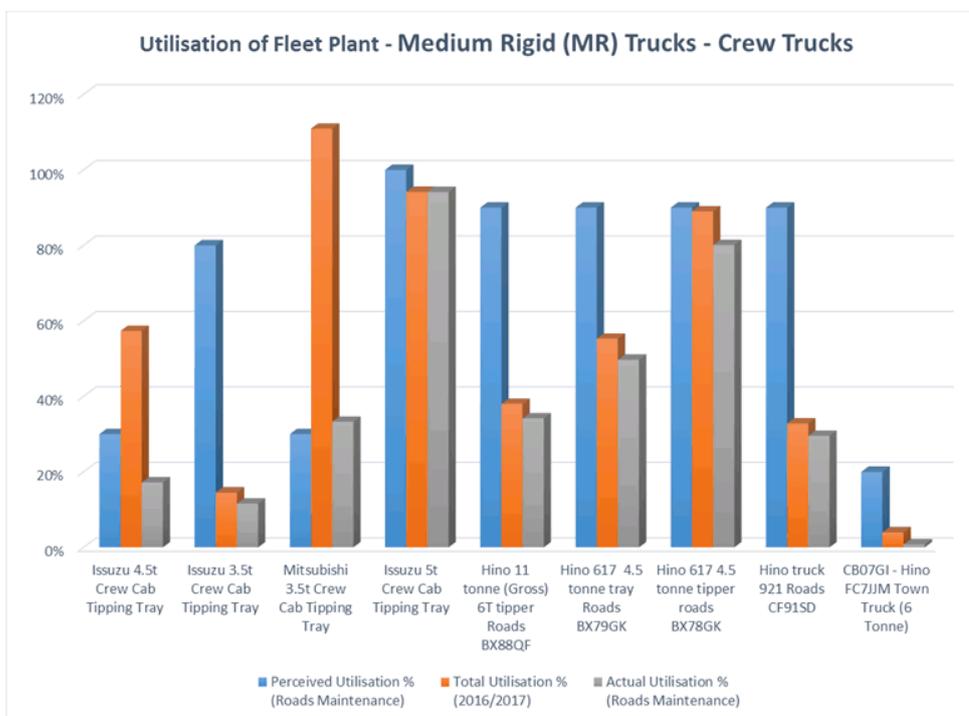
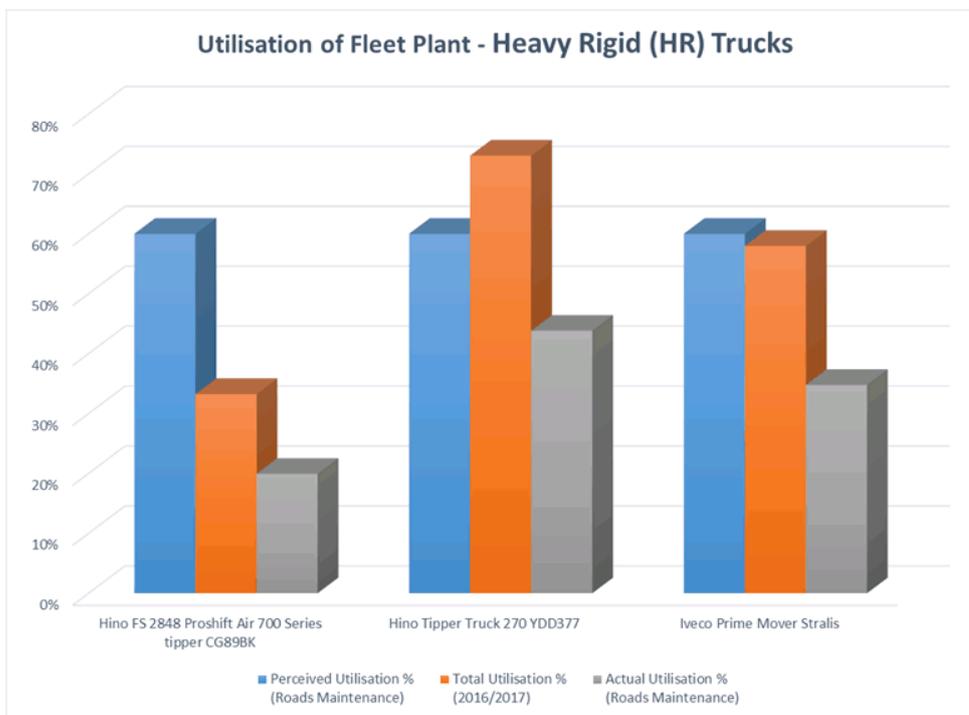


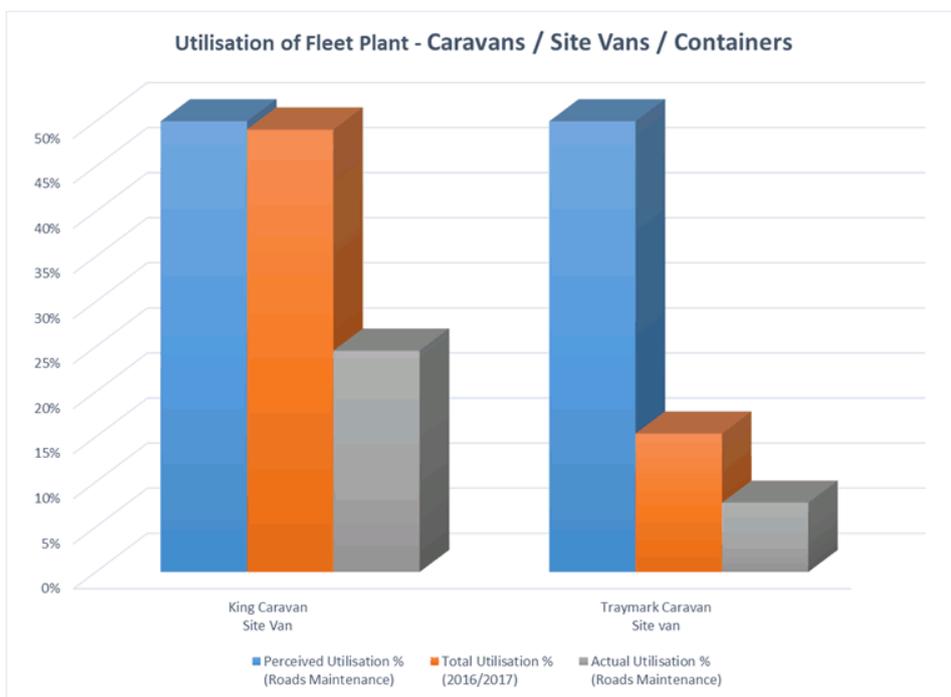
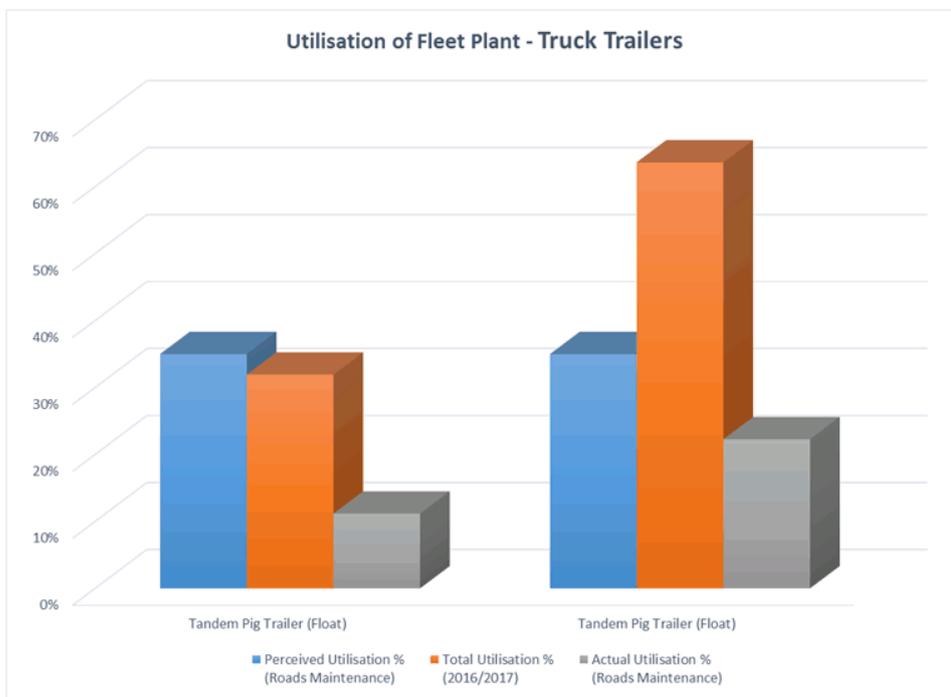


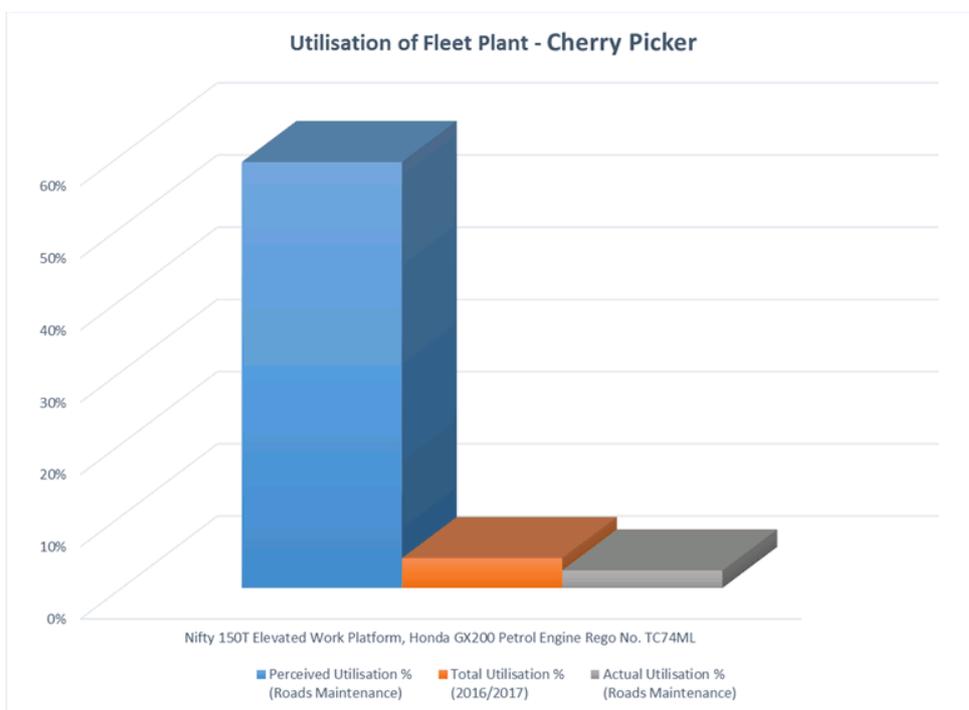
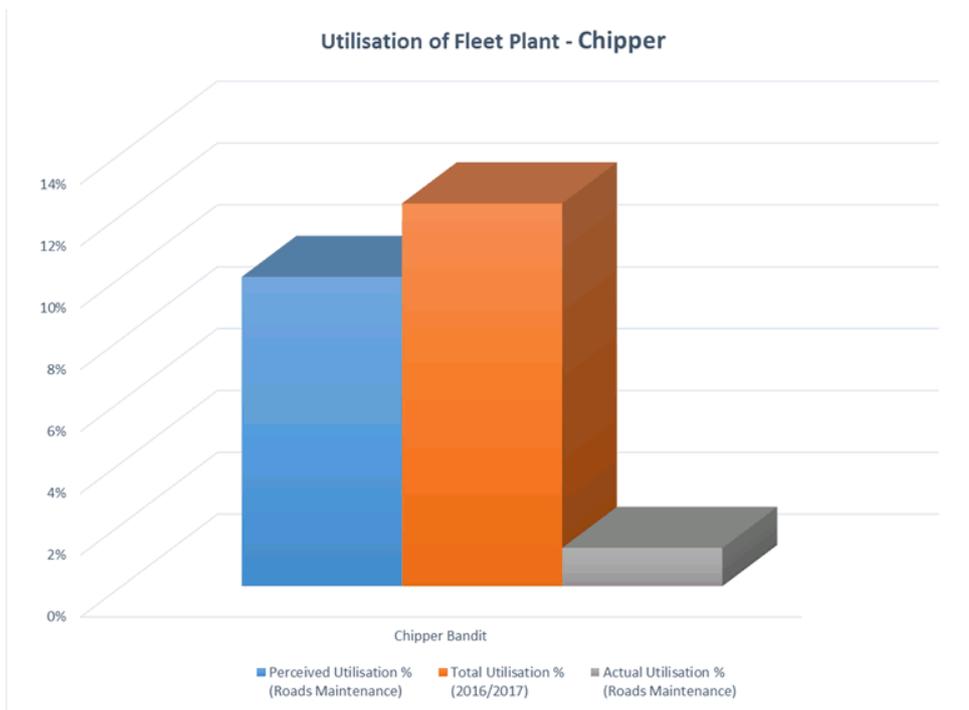


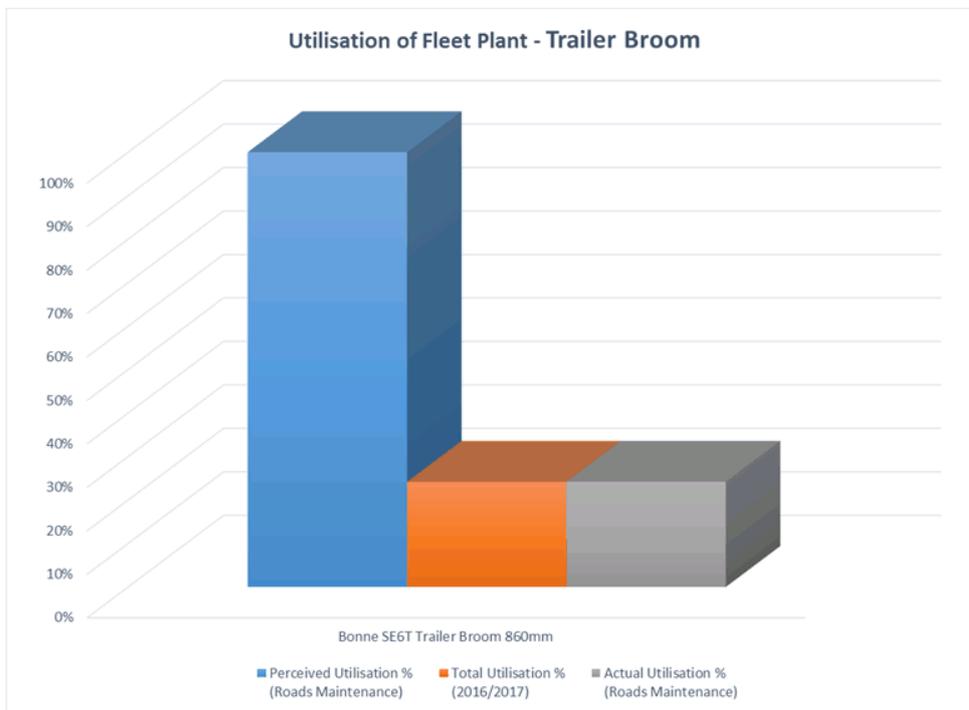
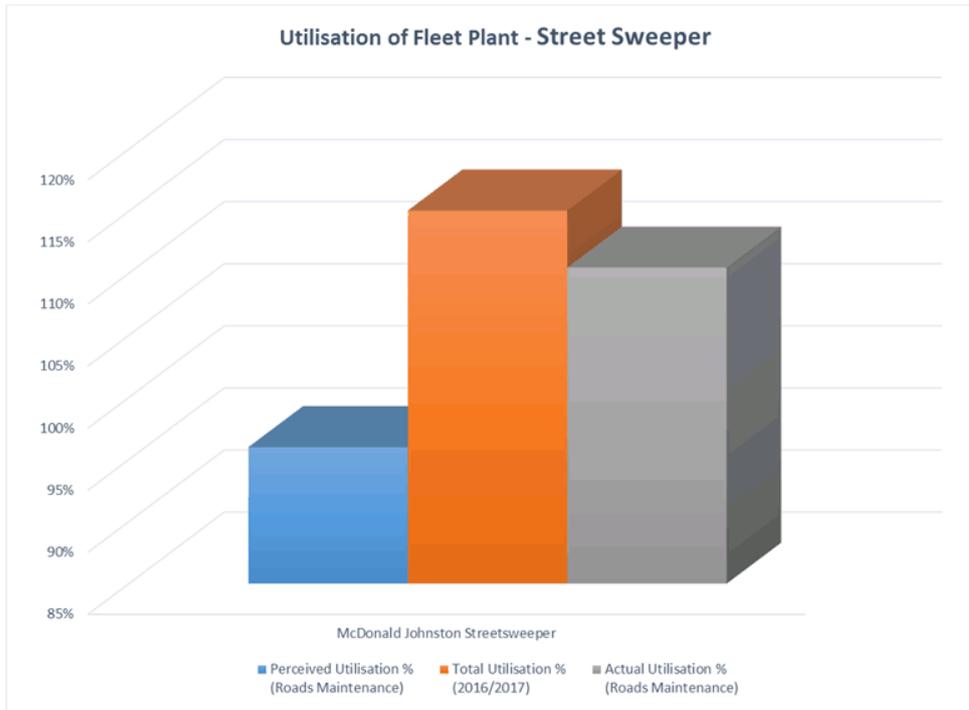












The graph and table below highlight individual plant items with over utilisation.

Figure 14: Over utilisation of Fleet Plant in 2016/17

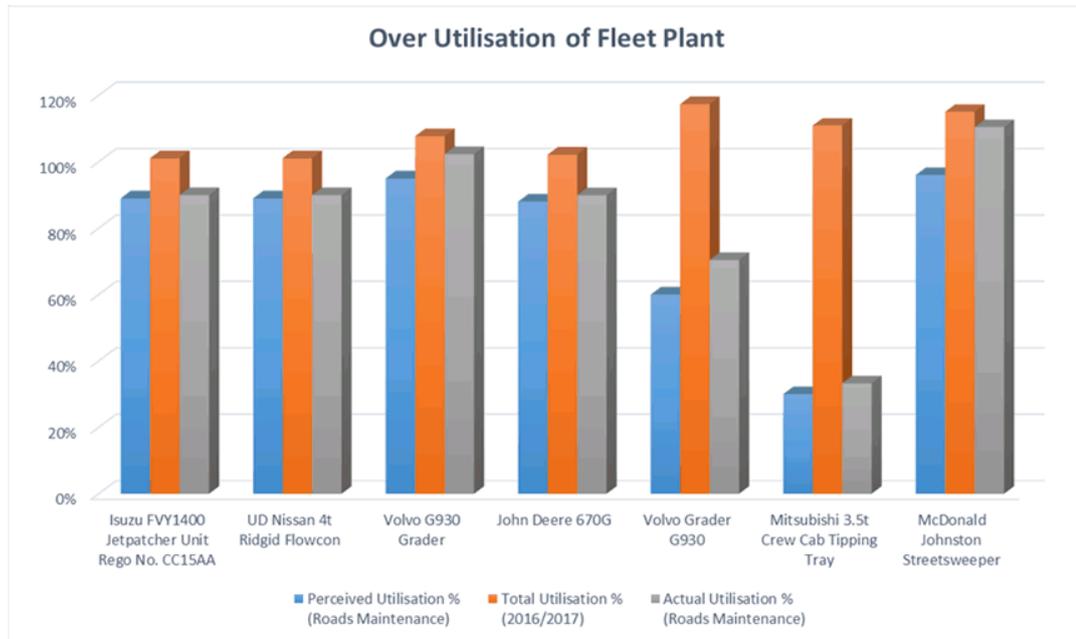


Table 16: Over utilisation of Fleet Plant in 2016/17

Plant Groups:		Perceived Utilisation % (Roads Maintenance)	Total Utilisation % (2016/2017)	Actual Utilisation % (Roads Maintenance)
Over Utilised Plant Items	Isuzu FVY1400 Jetpatcher Unit Rego No. CC15AA	89.00%	101.11%	89.99%
	UD Nissan 4t Ridgid Flowcon	89.00%	101.11%	89.99%
	Volvo G930 Grader	95.00%	107.73%	102.34%
	John Deere 670G	88.00%	102.17%	89.91%
	Volvo Grader G930	60.00%	117.37%	70.42%
	Mitsubishi 3.5t Crew Cab Tipping Tray	30.00%	110.91%	33.27%
	McDonald Johnston Streetsweeper	96.00%	115.05%	110.45%

9. COST ANALYSIS

Based on workshops conducted with road maintenance technicians a cost analysis was developed on the intervention levels identified in the Service Standards for Sealed and Unsealed Road Maintenance.

Collated data incorporates traffic control, plant, material and full time equivalent (FTE) requirements to determine a minimum and maximum cost analysis per intervention. In order to standardise these calculations we have costed based on a common unit of measure and a nominated minimum and maximum time required to meet each intervention item.

The variable costs or assumptions are detailed in the table below.

Table 17: Cost Analysis – Variables and Assumptions Table

Cost Analysis		
Item #	Variable	Assumption
1	Minimum Intervention Item	Traffic control, plant, material & FTE requirements will fluctuate depending on the severity of the intervention to be completed.
2	Maximum Intervention Item	Traffic control, plant, material & FTE requirements will fluctuate depending on the severity of the intervention to be completed.
3	Cost of Emulsion	\$1.17/L
4	Cost of Gravel	\$14.50/Tonne (calculated from \$8.00 internal quarry and \$21.00 external rate)
5	Spraying of Ground Vegetation	Spraying 15 minutes = 1km @ \$220/20L (1km=1L)
6	Cost of Loss Aggregate	\$120.00/Tonne
7	Cost of Crusher Dust	\$8.00/Tonne
8	Minor Pavement Patch	Extra material costs = \$100.00
9	Renew Surface Drain	Extra material costs = \$150.00
10	Minimum Traffic Control	\$116.88/hr (1 Team Leader, 1 Labourers and 4T Utility Truck)
11	Maximum Traffic Control	\$612.84 (1 Team Leader, 2 Labourers, 5.5hr set up and 4T Utility truck)

Information provided in the tables below, provides data for workforce and operational planning to support decision making by Transport Infrastructure (Operations).

Table 18: Sealed Road Maintenance Intervention Item Costs – Minimum and Maximum

Sealed Road Maintenance			
Intervention Items	RMS Unit of Measure	MINIMUM	MAXIMUM
		Total Materials, Internal Labour & Plant Hire Cost per Intervention	Total Materials, Internal Labour & Plant Hire Cost per Intervention
Repair Pothole (201)	each	\$ 57.16	\$ 207.81
Repair Pavement Edge (202)	metre	\$ 68.33	\$ 326.77
Repair Wearing Surface (203)	m2	\$ 51.11	\$ 5,288.44
Minor Pavement Patch (204)	m2	\$ 406.01	\$ 2,903.83
Seal Pavement Crack (211)	m2	\$ -	\$ -
Cross-Stitch Crack or Joint (213)	each	\$ -	\$ -
Remove Obstruction and Offensive Litter (301)	each	\$ 6.95	\$ 22.21
Reactive Roadside Maintenance (303)	each	\$ 67.26	\$ 263.26
Control Ground Vegetation (311)	m2	\$ 21.73	\$ 60.95
Trim Tree (312)	each	\$ 114.01	\$ 471.15
Remove Tree (316)	each	\$ 114.01	\$ 471.15
Collect Roadside Litter and Sweep Roadway (339)	kilometre	\$ 104.90	\$ 375.77
Snow Clearing Operations (363)	hours	\$ 437.62	\$ 1,838.64
Renew Surface Drain (511)	each	\$ 1,062.08	\$ 3,359.03
Clean Culvert (513)	each	\$ 50.95	\$ 205.55
Reactive Traffic Facility Maintenance (601)	each	\$ 99.08	\$ -
Maintain Non-Pavement Delineation (611)	each	\$ 50.95	\$ -
Renew Longitudinal Linemarking (617)	kilometre	\$ -	\$ -

(-) = nil resource requirements (e.g. intervention contracted or not required)

Table 19: Unsealed Road Maintenance Intervention Item Costs – Minimum and Maximum

Unsealed Road Maintenance			
Intervention Periods	RMS Unit of Measure	MINIMUM	MAXIMUM
		Total Materials, Internal Labour & Plant Hire Cost per Intervention	Total Materials, Internal Labour & Plant Hire Cost per Intervention
Repair Pothole (201)	each	\$ 25.07	\$ 80.95
Remove Obstruction and Offensive Litter (301)	each	\$ 12.15	\$ 55.97
Reactive Roadside Maintenance (303)	each	\$ 145.57	\$ 230.88
Control Ground Vegetation (311)	m2	\$ 21.73	\$ 18.50
Trim Tree (312)	each	\$ 55.57	\$ 471.15
Remove Tree (316)	each	\$ 55.57	\$ 471.15
Clean Culvert (513)	each	\$ 50.95	\$ 205.55
Reactive Traffic Facility Maintenance (601)	each	\$ 55.95	\$ -
Maintain Non-Pavement Delineation (611)	each	\$ 50.95	\$ -

(-) = nil resource requirements (e.g. intervention contracted or not required)

10. RISK ANALYSIS

A detailed risk analysis was undertaken to identify significant risks (high to extreme risk rating) within the current Road Maintenance function (refer Appendix C).

The risk analysis was derived from the Deep Dive analysis and findings, and based on current controls, without proposed actions.

11. KEY FINDINGS AND PROPOSED IMPROVEMENT ACTIONS

This report has been developed by the Innovation and Business Development (IBD) team and supported by CAM Management Solutions.

Table 20 on the next page lists the key issue areas, key findings and proposed improvement actions identified from the Deep Dive Service Review process for Sealed and Unsealed Road Maintenance.

The key findings and proposed actions were presented and discussed with the Director Service Delivery and staff from Transport Infrastructure (Operations), Fleet Management, Finance and Assets.

To achieve the best outcome from this Deep Dive Service Review, it is suggested that the recommendations listed in the following table are approved for implementation.

The IBD team can support the implementation of approved recommendations by:

- Monitoring and reporting on the implementation and progress of Actions or Tasks (through the Global Collaboration software tool)
- Monitoring and reporting on KPI related performance (through the Global Collaboration software tool)
- Monitoring and reporting on the management of service risks



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Table 20: Deep Dive Service Review Key Findings and Proposed Actions

Issue	Key Finding	Proposed Action	Approved	Responsible Officer	Proposed Start	Proposed Finish
Service Standards	Variation in Sealed and Unsealed Road Network classifications between Cooma-Monaro (C), Snowy River (S) and Bombala (B)	Adopt nominated road classifications				
	No documented service levels/intervention items by specified delivery times recorded for Council roads – Sealed or Unsealed	Adopt Sealed and Unsealed Road Maintenance nominated intervention items and timeframes				
	Varying maintenance grading schedules between previous C/S/B	Adopt the nominated frequency of grades				
	Variation in sealed and unsealed road maintenance procedures between C/S/B	Review and standardise specific road maintenance procedures e.g. heavy maintenance grading, pothole repair etc.				
Condition Rating	Safety wording from proposed Plant Condition Rating was skewing and limiting accurate rating	Adopt revised nominated Condition Rating criteria (remove the words safety)				
	Inconsistent Condition Rating between previous C/S/B	Develop Procedure for consistent condition rating				
	Lack of alignment of Plant Condition Rating with age and life expectancy, LTD hrs/utilisation rate and maintenance expenditure	Condition Rating to be undertaken by one person for accuracy and consistency				
Plant requirements	Variation between C/S/B on minimum plant required by intervention/maintenance item; recorded in the analysis as “minimum” and “maximum”	Standardise the plant required to undertake intervention/ maintenance items				
Plant Utilisation	There are a number of plant items that are under/over utilised of varying age and condition ratings. Under/ over utilised plant is a problem from several perspectives (e.g. on-going maintenance costs, replacement costs)	Review and undertake necessary action to reduce under/ over utilised plant items				



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Issue	Key Finding	Proposed Action	Approved	Responsible Officer	Proposed Start	Proposed Finish
Data Collection	Data collection is currently not always aligning and integrating between roads operations, asset management, finance, fleet, human resources and procurement	Integrate data collection with finance system, asset management system, long term financial plan Adopted Road classification to be rolled out across all data collection software Work orders need to be capturing all relevant job information i.e. (Staff name, hours worked, utilisation of plant, correct plant number, intervention item count, intervention item code as per RMS standard, materials used)				
	Current data collection for RMS roads in Reflect is inadequate; due to the underutilisation of the software capabilities. At present the Council are not utilising Reflect to capture any local road data.	Fully utilise Reflect for RMS data capture Consider transition capture of Local Road intervention item data in Reflect (the Standards have been setup to enable this)				
	Not all acquisition dates have been captured and/or recorded; actual age and LTD hours not always recorded for second hand plant purchases	Revise all acquisition dates and include true representation of actual plant age and LTD hours				
	No current measures to track performance	Review and adopt Benefits Realisation - see page 55 for recommendations				



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Issue	Key Finding	Proposed Action	Approved	Responsible Officer	Proposed Start	Proposed Finish
Cost per Intervention / Maintenance item	Large variation between minimum and maximum costs by intervention item based on nature of work undertaken and internal vs external delivery.	Setup Work Orders to capture new Road Maintenance intervention items by time and materials Use the revised average cost per intervention item to inform consultation to the community on Road Maintenance service levels Use the revised average cost per intervention item to inform decision making processes regarding internal and external delivery				
Service Delivery	Full cost recovery is not always factored into internal hire rates	Review internal hire rate of plant based on full cost recovery				
	For Heavy Maintenance Grading there is an 6.57% variation between Internal road maintenance delivery (labour and plant) and External wet hire – in favour of internal hire	Consider external wet hire in decisions to replace plant, recruit additional staff, increase service levels etc.				
	SMRC unsealed road network (1,727.74km) heavily outweighs sealed road network (1,006.39km)	Assess unsealed roads for suitability using a prioritisation scale. Justify by engaging in thorough costs analysis.				
	RMS Contracts	Snowy River and Bombala currently holding RMS Contract. Consider tender for entire Region including Cooma.				
Minor Plant	Minor plant (utility vehicles and minor plant items) outside the scope of the Deep Dive analysis	Undertake further analysis (minimum/maximum specification, utilisation rate, condition rating) for required minor plant items				

12. BENEFITS REALISATION

The major benefits that have been identified that can be realised through the adoption and implementation of the proposed improvement actions are listed below.

To achieve the best outcome from this Deep Dive Service Review, it is suggested that the recommendations listed in the following table are completed and approved for implementation.

Table 21: Major benefits from proposed service improvement actions

Benefit	Measured By	Projected Target	Timeframe
Sealed Road Maintenance			
Accountability and transparency for performance against sealed road maintenance service levels	Percentage of intervention items met within target response time		
	Average km/day for pavement sealing		
Improved efficiency of sealed road maintenance	Percentage change in average minimum cost by intervention item (benchmarked to 2016/2017)		
	Percentage change in average maximum cost by intervention item (benchmarked to 2016/2017)		
Unsealed Road Maintenance			
Accountability and transparency for performance against unsealed road maintenance service levels	Percentage of intervention items met within target response time		
	Average km/day for heavy maintenance grading		
	Average km/day for light maintenance grading		
Improved efficiency of unsealed road maintenance	Percentage change in average minimum cost by intervention item (benchmarked to 2016/2017)		
	Percentage change in average maximum cost by intervention item (benchmarked to 2016/2017)		
Road Maintenance Fleet			
Rationalisation of road maintenance heavy plant fleet	Reduction in maintenance cost of road maintenance heavy plant fleet		
	Reduction in replacement cost of road maintenance heavy plant fleet		
	Disposal value of surplus road maintenance heavy plant fleet		
Improved utilisation levels of road maintenance heavy plant	Percentage utilisation of heavy plant items (benchmarked to 2016/2017 SMRC levels)		
More accurate internal hire rates for road maintenance heavy plant	Percentage of heavy plant fleet meeting full cost recovery		

13. APPENDICES

Appendix A: Minimum and Maximum Plant Specifications

Table 22: Minimum and maximum plant specifications by Maintenance Intervention Item – Sealed

Sealed Road Maintenance	
Minimum Plant Required	Maximum Plant Required
Repair Pothole (201)	
Flowcons / Jet Patchers	Flowcons / Jet Patchers
	Medium Rigid (MR) Trucks (Crew Trucks)
Repair Pavement Edge (202)	
Flowcons / Jet Patchers	Flowcons / Jet Patchers
	Medium Rigid (MR) Trucks (Crew Trucks)
	Rollers (Maintenance Grading)
	Backhoes
Repair Wearing Surface (203)	
Medium Rigid (MR) Trucks (Crew Trucks)	Flowcons / Jet Patchers
	Medium Rigid (MR) Trucks (Crew Trucks)
	Rollers (Maintenance Grading)
	Loaders
	Street Sweeper
Minor Pavement Patch (204)	
Multi-Purpose Plant	Backhoes
Medium Rigid (MR) Trucks (Crew Trucks)	Flowcons / Jet Patchers
Flowcons / Jet Patchers	Medium Rigid (MR) Trucks (Crew Trucks)
Rollers (Maintenance Grading)	
Seal Pavement Crack (211)	
Cross-Stitch Crack or Joint (213)	
* Contracted	* Contracted
Remove Obstruction and Offensive Litter (301)	
Flowcons / Jet Patchers	Backhoes
Medium Rigid (MR) Trucks (Crew Trucks)	Medium Rigid (MR) Trucks (Crew Trucks)
Reactive Roadside Maintenance (303)	
Medium Rigid (MR) Trucks (Crew Trucks)	Backhoes
	Medium Rigid (MR) Trucks (Crew Trucks)
Control Ground Vegetation (311)	
Medium Rigid (MR) Trucks (Crew Trucks)	Medium Rigid (MR) Trucks (Crew Trucks)
	* Tractor/Slasher - No data captured in plant required



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Sealed Road Maintenance	
Minimum Plant Required	Maximum Plant Required
Trim Tree (312)	
Remove Tree (316)	
Medium Rigid (MR) Trucks (Crew Trucks)	Backhoes
	Chipper
	Heavy Rigid (HR) Trucks
	Medium Rigid (MR) Trucks (Crew Trucks)
Collect Roadside Litter and Sweep Roadway (339)	
Trailer Broom	Medium Rigid (MR) Trucks (Crew Trucks)
Medium Rigid (MR) Trucks (Crew Trucks)	Street Sweeper
Snow Clearing Operations (363)	
Medium Rigid (MR) Trucks (Crew Trucks)	Graders
	Backhoes
	or
	Loaders
	Medium Rigid (MR) Trucks (Crew Trucks)
Renew Surface Drain (511)	
Medium Rigid (MR) Trucks (Crew Trucks)	Backhoes
	Medium Rigid (MR) Trucks (Crew Trucks)
Clean Culvert (513)	
Medium Rigid (MR) Trucks (Crew Trucks)	Water Carts
	Medium Rigid (MR) Trucks (Crew Trucks)
	Backhoes
	or
	Excavators
Reactive Traffic Facility Maintenance (601)	
Maintain Non-Pavement Delineation (611)	
Medium Rigid (MR) Trucks (Crew Trucks)	* Contractor
Renew Longitudinal Linemarking (617)	
* Contractor	* Contractor

Table 23: Minimum and maximum plant specifications by Maintenance Intervention Item – Unsealed

Unsealed Road Maintenance	
Minimum Plant Required	Maximum Plant Required
Repair Pothole (201)	
Flowcons / Jet Patchers	Flowcons / Jet Patchers
	Medium Rigid (MR) Trucks (Crew Trucks)
Remove Obstruction and Offensive Litter (301)	
Flowcons / Jet Patchers	Backhoes
Medium Rigid (MR) Trucks (Crew Trucks)	Medium Rigid (MR) Trucks (Crew Trucks)
Reactive Roadside Maintenance (303)	
Medium Rigid (MR) Trucks (Crew Trucks)	Backhoes
	Medium Rigid (MR) Trucks (Crew Trucks)
Control Ground Vegetation (311)	
Medium Rigid (MR) Trucks (Crew Trucks)	Medium Rigid (MR) Trucks (Crew Trucks)
	* Tractor/Slasher - No data captured in plant required
Trim Tree (312)	
Medium Rigid (MR) Trucks (Crew Trucks)	Backhoes
	Chipper
	Heavy Rigid (HR) Trucks
	Medium Rigid (MR) Trucks (Crew Trucks)
Remove Tree (316)	
Medium Rigid (MR) Trucks (Crew Trucks)	Backhoes
	Chipper
	Heavy Rigid (HR) Trucks
	Medium Rigid (MR) Trucks (Crew Trucks)
Clean Culvert (513)	
Medium Rigid (MR) Trucks (Crew Trucks)	Water Carts
	Medium Rigid (MR) Trucks (Crew Trucks)
	Backhoes
	or
	Excavators
Reactive Traffic Facility Maintenance (601)	
Medium Rigid (MR) Trucks (Crew Trucks)	* Contractor
Maintain Non-Pavement Delineation (611)	
Medium Rigid (MR) Trucks (Crew Trucks)	* Contractor

Appendix B: Plant Condition and Utilisation % 2016/17

Table 24: Plant Condition Rating and Utilisation % 2016/17

Plant Groups:	Conditon Rating:	Plant Items:	Perceived Utilisation % (Roads Maintenance)	Total Utilisation % (2016/2017)	Actual Utilisation % (Roads Maintenance)
Flowcons / Jet Patchers	3	Isuzu FVY1400 Jetpatcher Unit Rego No. CC15AA	89.00%	101.11%	89.99%
	3	UD Nissan 4t Ridgid Flowcon	89.00%	101.11%	89.99%
	2	Hino Ranger Pro 6 Flocon Truck AP855C	90.00%	80.00%	72.00%
	2	Isuzu Truck FRR500 / Flocon Patching	100.00%	61.41%	61.41%
Loaders	1	Kawasaki 45ZV-2 Loader	100.00%	2.83%	2.83%
	1	Volvo L60E Articulated Front End Loader	79.00%	48.13%	38.02%
	1	Komatsu Loader WA380-6	50.00%	26.04%	13.02%
Backhoes	1	JCB 3CX Backhoe/Loader Rego No.48351D	93.00%	55.03%	51.18%
	3	Case 580 SLE Backhoe Loader QWB470	90.00%	2.93%	2.64%
	3	Case 580 SLE 4WD Backhoe XNL605	80.00%	4.34%	3.47%
	3	JCB Backhoe Loader, 3CX, 4X4	60.00%	9.75%	5.85%
	3	Terex 980 Backhoe	50.00%	11.11%	5.56%
Excavators	2	2013 Volvo EC220D Excavator	50.00%	65.05%	32.53%
Multi-Purpose Plant	1	AU01QM Bobcat Tele-Handler	20.00%	4.04%	0.81%
Water Carts	1	Mitsubishi Water Cart	90.00%	88.94%	80.05%
	2	Mitsubishi Fuso Heavy Rigid	75.00%	60.51%	45.38%
	2	Fuso Rigid Water Cart CG73FJ	90.00%	62.22%	56.00%
	2	Hino FS2848 Proshift 700 Series Tipper Roads B - 23 tonne	60.00%	25.56%	15.33%
	2	Mitsubishi Water Cart Truck 10,000L - FV51JKM2RFAA	100.00%	45.40%	45.40%



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Plant Groups:	Conditon Rating:	Plant Items:	Perceived Utilisation % (Roads Maintenance)	Total Utilisation % (2016/2017)	Actual Utilisation % (Roads Maintenance)
Graders	2	Volvo G930 Grader	95.00%	107.73%	102.34%
	2	Volvo G930 Grader	80.00%	94.85%	75.88%
	2	John Deere 670G	88.00%	102.17%	89.91%
	3	Caterpillar 12H Grader YLQ122	90.00%	42.93%	38.64%
	3	Caterpillar 12H Grader YLQ121	60.00%	27.07%	16.24%
	3	Grader Caterpillar 12H - XAG349	50.00%	57.45%	28.72%
	1	Volvo Grader G930	60.00%	117.37%	70.42%
Rollers (Maintenance Grading)	1	John Deere 670G Grader BV53WQ	10.00%	53.43%	5.34%
	2	Ammann Multi Tyre Roller AP240T3 BT07VZ	99.00%	82.07%	81.25%
	2	Ammann Pnuematic Tyred Roller with Cabin	98.00%	84.80%	83.10%
	3	Bomag BW211D-4 Smooth Drum Roller	60.00%	83.03%	49.82%
Rollers (Construction)	2	Multipac Smooth Drum Roller - 13709D	40.00%	7.07%	2.83%
	1	Dynapac CA2500D Vibrating Roller, extended warranty Rego No. 47330D - Smooth Drum/Pad Foot	21.00%	39.19%	8.23%
	1	Atlas Copco CA4000D Smooth Drum Roller - Multipac Roller 44215D	90.00%	33.94%	30.55%
Rollers (Minor Construction)	1	Dynapac Pad Foot Roller - 13707D	40.00%	21.14%	8.45%
	2	2006 Caterpillar CB214E Compactor AO97ZW Vibrating Roller	100.00%	6.52%	6.52%
Heavy Combination (HC) Trucks	3	Prime Mover Mack Float YZK699	50.00%	58.38%	29.19%
Heavy Rigid (HR) Trucks	1	Hino FS 2848 Proshift Air 700 Series tipper CG89BK	60.00%	33.23%	19.94%
	3	Hino Tipper Truck 270 YDD377	60.00%	73.03%	43.82%
	2	Iveco Prime Mover Stralis	60.00%	57.95%	34.77%



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Plant Groups:	Conditon Rating:	Plant Items:	Perceived Utilisation % (Roads Maintenance)	Total Utilisation % (2016/2017)	Actual Utilisation % (Roads Maintenance)
Medium Rigid (MR) Trucks (Crew Trucks)	2	Issuzu 4.5t Crew Cab Tipping Tray	30.00%	57.32%	17.20%
	1	Issuzu 3.5t Crew Cab Tipping Tray	80.00%	14.49%	11.60%
	1	Mitsubishi 3.5t Crew Cab Tipping Tray	30.00%	110.91%	33.27%
	1	Issuzu 5t Crew Cab Tipping Tray	100.00%	94.14%	94.14%
	2	Hino 11 tonne (Gross) 6T tipper Roads BX88QF	90.00%	37.98%	34.18%
	2	Hino 617 4.5 tonne tray Roads BX79GK	90.00%	55.25%	49.73%
	2	Hino 617 4.5 tonne tipper roads BX78GK	90.00%	88.99%	80.09%
	2	Hino truck 921 Roads CF91SD	90.00%	32.83%	29.55%
Truck Trailers	1	CB07GI - Hino FC7JJM Town Truck (6 Tonne)	20.00%	3.96%	0.79%
	2	Tandem Pig Trailer (Float)	35.00%	31.92%	11.17%
Caravans / Site Vans / Containers	2	Tandem Pig Trailer (Float)	35.00%	63.64%	22.27%
	1	King Caravan - Site Van	50.00%	49.09%	24.55%
	2	Traymark Caravan - Site van	50.00%	15.35%	7.68%
Chipper	2	Chipper Bandit	10.00%	12.37%	1.24%
Cherry Picker	1	Nifty 150T Elevated Work Platform, Honda GX200 Petrol Engine Rego No. TC74ML	59.00%	4.14%	2.44%
Street Sweeper	3	McDonald Johnston Streetsweeper	96.00%	115.05%	110.45%
Trailer Broom	1	Bonne SE6T Trailer Broom 860mm	100.00%	24.19%	24.19%

Note: The detailed table above represents the total findings of all plant, including the 29 identified (highlighted yellow)



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Appendix C: Risk Analysis

Table 25: Current Risk Assessment

Risk	Risk Category	Causes	Consequences	Controls	Consequence Rating	Likelihood Rating	Risk Rating
Lack of integration of work orders, financial and asset management systems, workforce planning	Workforce Planning (2) Operations (2) Financial (5) 9/3= 3	Data capture levels inadequate. Multiple operating systems that do not provide integrated consistent data capture. No KPIs for Council roads. Inadequate staff training and development.	Lack of alignment in workforce, plant and standards. Not supporting informed, timely decision making and funding choices. Under or over funding the service. Lack of accountability for service performance.	None Identified	Moderate	Almost Certain	High



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Risk	Risk Category	Causes	Consequences	Controls	Consequence Rating	Likelihood Rating	Risk Rating
Assets are not managed effectively in relation to utilisation, plant condition, replacement, disposal costs	Financial (3) Business Continuity (2) Asset Management (2) Operations (3) 10/4 = 2.5	Inadequate asset data. Perception of plant utilisation vs actual. Inconsistent asset condition rating. Acquisition dates for Bombala plant prior to 2013 not known.	Low plant utilisation rates. Council carrying excess plant based on low utilisation rates with cost penalties for ongoing maintenance and replacement. Plant replacement budgeting in the long term financial plan is inconsistent. Some plant charges are not based on actual age and accurate condition rating. Escalating maintenance costs of plant retained beyond replacement schedule.	None identified	Moderate	Almost Certain	High



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Risk	Risk Category	Causes	Consequences	Controls	Consequence Rating	Likelihood Rating	Risk Rating
Inconsistent levels of service and procedures across the road network	Financial (4) Work Health and Safety (4) Public Liability (3) Reputation (3) Legal (4) 18/5 = 3.6	Lack of budget to maintain the road network at a consistent level. Variability in some maintenance procedures between the former Councils. Maintaining pre-merger service levels in some areas of the road network. Not undertaking inspections in a timely manner.	Community criticism in relation to inconsistent service levels. Liability from damage claims in relation to roads not maintained at an adequate/prescribed standard. Variability in costs associated with variability in maintenance procedures.	None identified	Major	Almost Certain	Extreme



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Risk	Risk Category	Causes	Consequences	Controls	Consequence Rating	Likelihood Rating	Risk Rating
Poorly constructed and/or maintained road network	Financial (5) Public Liability (3) Operations (4) Legal (5) Work Health and Safety (5) Emergency and Disaster Response (3) 25/6 = 4	Historical construction and condition of road network. Inconsistent construction standards and expenditure. Inconsistent maintenance levels and expenditure.	Higher cost of road maintenance over time. Higher probability of accidents and damage claims. Restricted access to roads following adverse weather events. Limitation on qualifying for disaster reconstruction/repair funding because of poor standard of respective roads as at time of event (flood – re-sheeting etc.)	Planned sealing of un-sealed roads.	Severe	Almost Certain	Major



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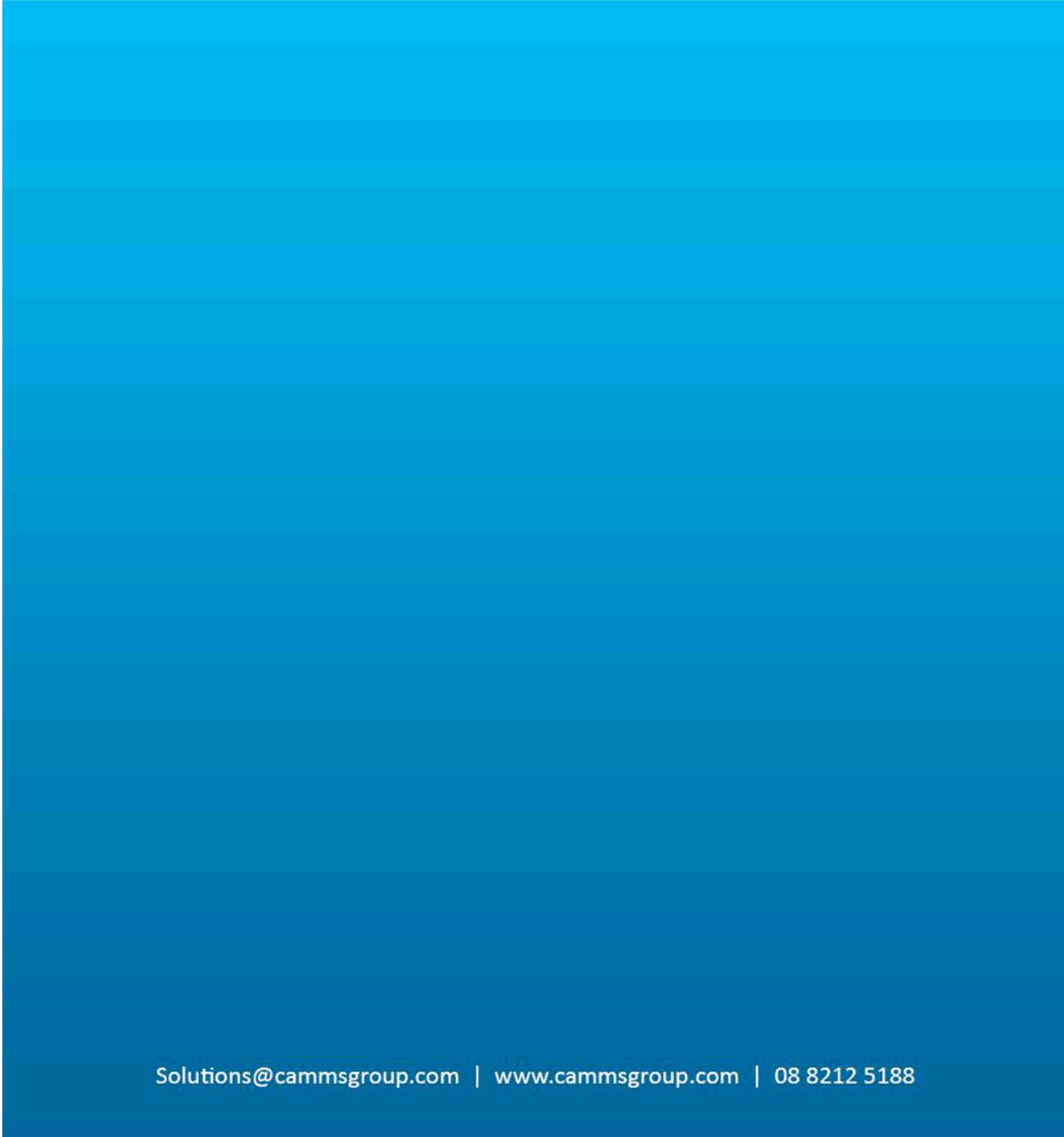
Risk	Risk Category	Causes	Consequences	Controls	Consequence Rating	Likelihood Rating	Risk Rating
Not effectively communicating maintenance service levels and priorities across the road network with the community	Reputation (3)	No prescribed/ agreed maintenance service levels for Council roads. Concern about community criticism and/or being held accountable for current priorities and maintenance levels. Inadequate funding for road maintenance.	Community criticism on road condition, maintenance prioritisation and funding.	Response to individual enquiries or complaints.	Moderate	Almost Certain	High
Uncoordinated maintenance service delivery across the road network	Operations (2) Financial (3) Reputation (2) Time (2) Workforce Planning (2) 11/5 = 2.20	Maintenance jobs not being scheduled to maximise efficient delivery. Different maintenance procedures between Council areas. Lack of supervisors to work with each maintenance team.	Increased cost of inefficient delivery eg different jobs on same road at different times. Community criticism of maintenance operations.	None identified	Minor	Almost Certain	High



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Risk	Risk Category	Causes	Consequences	Controls	Consequence Rating	Likelihood Rating	Risk Rating
Ineffective communication between stakeholders (within and across business units) in road maintenance operations	Operations (2) Financial (2) Time (2) Workforce Planning (2) 8/4 = 2	Organisational structure is not yet finalised. Lack of supervisors. Lack of systems integration between road operations, finance, asset management, workforce planning.	Integration in road maintenance operations and with associated systems is held back. Inconsistent road maintenance service levels, scheduling and cost of delivery.	None identified	Minor	Almost Certain	High



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Local Government Grants Commission

5 O'Keefe Avenue NOWRA NSW 2541
Locked Bag 3015 NOWRA NSW 2541

Our Reference: **GC 146**
A559549 & A559446

Contact: Helen Pearce
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helen.pearce@olg.nsw.gov.au

Mr Joseph Vescio
Interim General Manager
Snowy Monaro Regional Council
Joseph.Vescio@snowyriver.nsw.gov.au

21 August 2017

Dear Mr Vescio

The Commission has a policy of providing information to councils about the way it calculates financial assistance grants. Accordingly, please find attached detailed summaries of the 2017-18 grant calculations for the former entities of Bombala, Cooma-Monaro Shire and Snowy River Shire Councils which have been aggregated to calculate a total general purpose component of \$6,516,611, a total local roads component of \$2,669,080, and total financial assistance grant of \$9,185,691 for Snowy Monaro Regional Council.

Variations in the general purpose component to individual councils tend to be due to, but are not limited to, changes in relativities in property values, changes in ABS resident population data, changes in state standard costs and councils' reported local road and bridge length. Variations in the local roads component to individual councils are caused by changes in the relativities of councils' local road and bridge length, and ABS resident population data.

In addition to these calculations, in its 2017 Budget, the Federal Government made two decisions affecting its Financial Assistance Grants program. Firstly, it decided to bring forward payment of 50 per cent of the financial assistance grants based on the 2016-17 estimates for payment. Councils, therefore, received half of their estimated 2017-18 financial assistance grants on 8 June 2017. The remainder of the grant entitlements will be paid in quarterly instalments in August, November, February and May.

Secondly, in 2017-18 the Federal Government resumed indexation of the financial assistance grants after pausing it for three years, increasing this year's quantum of fund by approximately 3.4%.



DETAILS OF 2017-18 GRANT CALCULATIONS

Appendix A, titled *Disability Calculations Summary – 2017-18*, shows the measures used in the calculation of grants for your council area. This information should be examined if council is considering making a special submission.

Appendix B, titled *Explanation of Calculation Summaries*, explains how the revenue and expenditure allowances are calculated and used in the grant determination process.

Appendix C, titled *Details of Disability Factors*, provides background information relating to what each expenditure disability factor recognises, the measures used, their source, the standards (State average) and weightings.

SPECIAL SUBMISSIONS RELATING TO 2017-18 GRANTS

Special submissions are invited from council in relation to the distribution of financial assistance grants for 2018-19. However, council is not required to make a submission.

The purpose of a submission is to give council the opportunity to present information on the financial impact of inherent expenditure disabilities beyond its control that are not generally recognised in the current methodology. This allows the Commission to adequately consider all legitimate factors that affect council's capacity to deliver services.

Appendix D, titled *Guidelines for Special Submissions*, contains guidelines for preparing submissions – please read the guidelines carefully.

Submissions should be e-mailed to the Commission at grants@olg.nsw.gov.au by **30 November 2017**.

I would ask that this letter be tabled at the next council meeting.

If you have any questions concerning these matters please contact me on (02) 4428 4131.

Yours sincerely



Helen Pearce
Executive Officer

APPENDIX ALOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18**Bombala****POPULATION BASED FUNCTIONS**

POPULATION: 2,410

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
ADMINISTRATION AND GOVERNANCE (STANDARD COST): \$196.02				
Aboriginal and/or Torres Strait Islander:	1.95%	2.49%	0.005	0.0
Economies of Scale:	218	100	1.280	151.0
Non-English Speaking Background:	2.87%	18.45%	0.010	0.0
Population Distribution:	3.94	2.43	0.006	0.4
Population, Below Average Growth (5yr Average):	-0.60%	1.37%	0.019	2.8
Sparsity (sq km per capita):	1.62	0.26	0.010	5.3
Other:				0.0
			Rounded Total:	160
AERODROMES (STANDARD COST): \$3.34				
Net Expenditure - Aerodromes:	0.75	3.34	1.000	0.0
Other:				0.0
			Rounded Total:	0
AGED PERSON'S SERVICES (STANDARD COST): \$0.84				
Aged Persons (>=60 Yrs):	29.30%	21.18%	1.000	38.3
Pensioners:	17.00%	13.23%	1.200	34.2
Population Distribution:	3.94	2.43	0.002	0.1
Other:				0.0
			Rounded Total:	73
ANIMAL CONTROL (STANDARD COST): \$2.61				
Population Distribution:	3.94	2.43	0.070	4.3
Other:				0.0
			Rounded Total:	4
CEMETRIES (STANDARD COST): \$0.28				
Population Distribution:	3.94	2.43	0.015	0.9
Other:				0.0
			Rounded Total:	1

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Bombala****POPULATION BASED FUNCTIONS**

POPULATION: 2,410

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
CHILDREN'S SERVICES (STANDARD COST): \$3.41				
One Parent Families:	14.11%	16.28%	0.815	0.0
Population Distribution:	3.94	2.43	0.001	0.1
Pre-School Children (0-4 Yrs):	5.14%	6.46%	1.000	0.0
Other:				0.0
			Rounded Total:	0
COMMUNITY SERVICES (STANDARD COST): \$12.15				
Aboriginal and/or Torres Strait Islander:	1.95%	2.49%	0.116	0.0
Non-English Speaking Background:	2.87%	18.45%	0.125	0.0
Occupation:	34.01%	24.51%	0.750	29.1
Pension and Benefit Recipients (<60 Yrs):	20.53%	24.93%	0.965	0.0
Population Distribution:	3.94	2.43	0.001	0.1
Youth (15-24 Yrs):	10.78%	12.98%	0.200	0.0
Other:				0.0
			Rounded Total:	29
CULTURAL FACILITIES (STANDARD COST): \$18.88				
Duplication of Halls:	283.18	11.02	0.100	50.0
Non-Resident Use - Cultural Facilities:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	50
FIRE CONTROL & EMERGENCY SERVICES (STANDARD COST): \$16.67				
Duplication of SES Units	1.00	1.00	0.002	0.0
Floodboats:	0.41	0.05	0.026	17.6
Flood Prone Buildings:	15.35	24.05	0.027	0.0
Rural Fire Fighting Contributions	76.25	4.30	0.300	500.0
Urban Fire Levy:	11.18	11.03	0.800	1.1
Other:				0.0
			Rounded Total:	519
HEALTH & SAFETY (STANDARD COST): \$9.39				
Food Premises:	9.54	5.91	0.751	46.2
Non-English Speaking Background:	2.87%	18.45%	0.100	0.0
Population Distribution:	3.94	2.43	0.015	0.9
Public Toilets:	160	100	0.250	15.0
Vandalism and Crime:	0.33%	0.83%	0.022	0.0
Other:				0.0
			Rounded Total:	62

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Bombala****POPULATION BASED FUNCTIONS**

POPULATION: 2,410

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
LIBRARIES (STANDARD COST): \$34.73				
Aged Persons:	29.30%	21.18%	0.260	10.0
Non-English Speaking Background:	2.87%	18.45%	0.100	0.0
Non-Resident Borrowers:	102.75	116.63	1.000	0.0
Population Distribution:	3.94	2.43	0.018	1.1
Students - Full Time:	15.48%	19.45%	0.195	0.0
Other:				0.0
			Rounded Total:	11
PLANNING & BUILDING (STANDARD COST): \$29.73				
Development Activity:	59.23	58.58	0.250	0.3
Environmental Sensitivity:	1	1	0.060	0.0
Heritage:	1	1	0.028	0.0
Non-English Speaking Background:	2.87%	18.45%	0.040	0.0
Non-Residential Urban Properties:	6.43	2.52	0.200	30.0
Population Distribution:	3.94	2.43	0.017	1.1
Regional Centres and Secondary CBD's:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	31
RECREATION (STANDARD COST): \$105.52				
Age Structure (5-29 yrs):	27.16%	32.44%	0.750	0.0
Beach Lifesaving:	100	100	1.000	0.0
Climate Measure:	1,330	898	0.277	13.3
Day Trippers:	100	100	1.000	0.0
Duplication of Playing Fields:	1.90	1.12	0.460	32.4
Duplication of Pools:	69.96	12.34	0.060	28.0
Non-Resident Use - Recreation:	110	100	1.000	10.0
Non-Urban Measure:	100	100	1.000	0.0
Population Distribution:	3.94	2.43	0.003	0.2
Tidal/Rock Pools	0.00	1.28	0.005	0.0
Other:				0.0
			Rounded Total:	84

APPENDIX ALOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18**Bombala****PROPERTY BASED FUNCTIONS**

URBAN PROPERTIES: 1,259

NON-URBAN PROPERTIES: 613

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
URBAN PROPERTY BASED FUNCTIONS				
STORMWATER DRAINAGE & FLOOD CONTROL (STANDARD COST): \$86.16				
Flood Prone Urban Buildings:	1.03	1.00	1.810	5.3
Levee Measure:	0.00	0.19	0.010	0.0
Stormwater Drainage Index:	1.40	1.00	1.000	39.6
Other:				0.0
			Rounded Total:	45
STREET & GUTTER CLEANING (STANDARD COST): \$40.33				
Non-Res. Urban Props (Excl. Non-Metro LGAs):	12.31%	6.51%	0.500	N/A
Urban Density:	1	1,250	0.200	0.0
Other:				0.0
			Rounded Total:	0
STREET LIGHTING (STANDARD COST): \$37.13				
Net Expenditure - Street Lighting:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	0
NON-URBAN PROPERTY BASED FUNCTION				
NOXIOUS PLANTS & PEST CONTROL (STANDARD COST): \$146.79				
Infestation:	Low-Moderate	N/A	N/A	10.0
Terrain:	20.0%	N/A	N/A	2.0
Other:				
			Rounded Total:	12

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Bombala****ISOLATION ALLOWANCE DATA**

POPULATION:	2,410
Adjusted Population (ceiling = 7,500):	2,410
Distance from Sydney:	490 km
Distance from Nearest Major Regional Centre:	205 km
Per Capita Allowance:	\$113.74
Western Zone Per Capita Allowance:	\$0.00
Total Per Capita Allowance:	\$136.49

REVENUE ALLOWANCE DATA

URBAN:	
No. of Properties:	1,259
Standard Value Per Property:	\$353,306
Council Value:	\$41,744
Standard Rate:	0.003704
NON-URBAN:	
No. of Properties:	613
Standard Value Per Property:	\$563,690
Council Value:	\$371,967
Standard Rate:	0.004484
PENSIONER REBATE ALLOWANCE:	
Pensioner Assessments as a % of Residential Assessments:	26.09%
Standard Percentage:	17.08%

LOCAL ROADS COMPONENT DATA 2017-18

	Item	Council Measure
	Population:	2,410
	Local Road Length:	629 km
	Length of Bridges on Local Roads:	882 m
	Road Allowance (based on Road Length and Population):	\$621,918
	Bridge Allowance (based on Bridge Length):	\$70,102
	Total Allowance:	\$692,020

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Bombala****STANDARD COSTS USED IN THE CALCULATION OF EXPENDITURE ALLOWANCES**

FUNCTION	Council Value	State Standard
ADMINISTRATION AND GOVERNANCE	\$574.69	\$196.02
AERODROMES	\$2.07	\$3.34
AGED PERSONS' SERVICES	(\$10.79)	\$0.84
ANIMAL CONTROL	\$7.05	\$2.61
CEMETERIES	\$7.05	\$0.28
CHILDREN'S SERVICES	\$0.00	\$3.41
COMMUNITY SERVICES	(\$9.96)	\$12.15
CULTURAL FACILITIES	\$46.47	\$18.88
FIRE CONTROL AND EMERGENCY SERVICES	\$51.04	\$16.67
HEALTH AND SAFETY	\$19.92	\$9.39
LIBRARIES	\$25.73	\$34.73
NOXIOUS PLANTS AND PEST CONTROL (per non-urban property)	\$96.25	\$146.79
PLANNING & BUILDING	\$26.56	\$29.73
RECREATION	\$97.93	\$105.52
STORMWATER DRAINAGE AND FLOOD CONTROL (per urban property)	\$16.68	\$86.16
STREET AND GUTTER CLEANING (per urban property)	\$0.00	\$40.33
STREET LIGHTING (per urban property)	\$12.71	\$37.13

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Bombala****STANDARD COSTS USED IN THE CALCULATION OF EXPENDITURE ALLOWANCES**

FUNCTION	Council Value	State Standard
MAINTENANCE - URBAN LOCAL ROADS:		
a) Cost per length (km) of roads in urban/built-up areas for which council is responsible:	\$14,200.00	\$20,661.43
b) Urban length (m) per urban property:	23.83	11.03
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$0.00	\$387.07
d) Bridge length (m) per network km of roads:	1.63	0.81
MAINTENANCE - SEALED RURAL LOCAL ROADS:		
a) Cost per length (km) of sealed roads in non-urban areas for which the council is responsible:	(\$4,653.15)	\$4,997.57
b) Sealed rural length (m) per non-urban property:	152.85	301.01
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$4,162.22	\$630.62
d) Bridge length (m) per network km of roads:	3.14	2.26
MAINTENANCE - UNSEALED RURAL LOCAL ROADS:		
a) Cost per length (km) of unsealed roads in non-urban areas for which the council is responsible:	\$1,577.59	\$2,017.79
b) Unsealed rural length (m) per non-urban property:	824.1	681.42
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$0.00	\$98.52
d) Bridge length (m) per network km of roads:	1.07	0.62

***** NOTES *****

- * Unless otherwise shown, costs are per capita, based on ABS estimated resident population data (preliminary), as at 30 June 2016, as determined by the Australian Bureau of Statistics.
- * The "Council Value" is the unit cost for the Council based principally on 2015-16 Schedule 1 data.
- * State Standard costs are based on annual State averages costs, which are then averaged over 5 years (2011-12 to 2015-16). Annual average costs exclude extreme values in some cases. Standard costs are not intended to represent an ideal or optimal level of expenditure.
- * Information on the standard cost for each function is provided for information only and individual council values are generally not used to determine grants.

APPENDIX ALOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18**Cooma-Monaro (\$)****POPULATION BASED FUNCTIONS**

POPULATION: 10,153

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
ADMINISTRATION AND GOVERNANCE (STANDARD COST): \$196.02				
Aboriginal and/or Torres Strait Islander:	2.72%	2.49%	0.005	0.0
Economies of Scale:	166	100	1.280	84.5
Non-English Speaking Background:	7.89%	18.45%	0.010	0.0
Population Distribution:	0.82	2.43	0.006	0.0
Population, Below Average Growth (5yr Average):	0.04%	1.37%	0.019	1.9
Sparsity (sq km per capita):	0.51	0.26	0.010	1.0
Other:				0.0
			Rounded Total:	87
AERODROMES (STANDARD COST): \$3.34				
Net Expenditure - Aerodromes:	0.00	3.34	1.000	0.0
Other:				0.0
			Rounded Total:	0
AGED PERSON'S SERVICES (STANDARD COST): \$0.84				
Aged Persons (>=60 Yrs):	26.67%	21.18%	1.000	25.9
Pensioners:	14.97%	13.23%	1.200	15.8
Population Distribution:	0.82	2.43	0.002	0.0
Other:				0.0
			Rounded Total:	42
ANIMAL CONTROL (STANDARD COST): \$2.61				
Population Distribution:	0.82	2.43	0.070	0.0
Other:				0.0
			Rounded Total:	0
CEMETRIES (STANDARD COST): \$0.28				
Population Distribution:	0.82	2.43	0.015	0.0
Other:				0.0
			Rounded Total:	0

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Cooma-Monaro (S)****POPULATION BASED FUNCTIONS**

POPULATION: 10,153

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
CHILDREN'S SERVICES (STANDARD COST): \$3.41				
One Parent Families:	15.53%	16.28%	0.815	0.0
Population Distribution:	0.82	2.43	0.001	0.0
Pre-School Children (0-4 Yrs):	5.42%	6.46%	1.000	0.0
Other:				0.0
			Rounded Total:	0
COMMUNITY SERVICES (STANDARD COST): \$12.15				
Aboriginal and/or Torres Strait Islander:	2.72%	2.49%	0.116	1.1
Non-English Speaking Background:	7.89%	18.45%	0.125	0.0
Occupation:	26.61%	24.51%	0.750	6.4
Pension and Benefit Recipients (<60 Yrs):	23.11%	24.93%	0.965	0.0
Population Distribution:	0.82	2.43	0.001	0.0
Youth (15-24 Yrs):	11.52%	12.98%	0.200	0.0
Other:				0.0
			Rounded Total:	8
CULTURAL FACILITIES (STANDARD COST): \$18.88				
Duplication of Halls:	43.21	11.02	0.100	29.2
Non-Resident Use - Cultural Facilities:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	29
FIRE CONTROL & EMERGENCY SERVICES (STANDARD COST): \$16.67				
Duplication of SES Units	1.88	1.00	0.002	0.2
Floodboats:	0.10	0.05	0.026	2.2
Flood Prone Buildings:	12.31	24.05	0.027	0.0
Rural Fire Fighting Contributions	27.37	4.30	0.300	160.9
Urban Fire Levy:	4.78	11.03	0.800	0.0
Other:				0.0
			Rounded Total:	163
HEALTH & SAFETY (STANDARD COST): \$9.39				
Food Premises:	6.80	5.91	0.751	11.3
Non-English Speaking Background:	7.89%	18.45%	0.100	0.0
Population Distribution:	0.82	2.43	0.015	0.0
Public Toilets:	140	100	0.250	10.0
Vandalism and Crime:	0.67%	0.83%	0.022	0.0
Other:				0.0
			Rounded Total:	21

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Cooma-Monaro (S)
POPULATION BASED FUNCTIONS**

POPULATION: 10,153

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
LIBRARIES (STANDARD COST): \$34.73				
Aged Persons:	26.67%	21.18%	0.260	6.7
Non-English Speaking Background:	7.89%	18.45%	0.100	0.0
Non-Resident Borrowers:	102.75	116.63	1.000	0.0
Population Distribution:	0.82	2.43	0.018	0.0
Students - Full Time:	17.14%	19.45%	0.195	0.0
Other:				0.0
			Rounded Total:	7
PLANNING & BUILDING (STANDARD COST): \$29.73				
Development Activity:	60.60	58.58	0.250	0.9
Environmental Sensitivity:	1	1	0.060	0.0
Heritage:	1	1	0.028	0.0
Non-English Speaking Background:	7.89%	18.45%	0.040	0.0
Non-Residential Urban Properties:	4.15	2.52	0.200	12.9
Population Distribution:	0.82	2.43	0.017	0.0
Regional Centres and Secondary CBD's:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	14
RECREATION (STANDARD COST): \$105.52				
Age Structure (5-29 yrs):	28.07%	32.44%	0.750	0.0
Beach Lifesaving:	100	100	1.000	0.0
Climate Measure:	1,393	898	0.277	15.2
Day Trippers:	103	100	1.000	3.0
Duplication of Playing Fields:	1.17	1.12	0.460	2.1
Duplication of Pools:	16.61	12.34	0.060	2.1
Non-Resident Use - Recreation:	110	100	1.000	10.0
Non-Urban Measure:	100	100	1.000	0.0
Population Distribution:	0.82	2.43	0.003	0.0
Tidal/Rock Pools	0.00	1.28	0.005	0.0
Other:				0.0
			Rounded Total:	32

APPENDIX ALOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18**Cooma-Monaro (S)**
PROPERTY BASED FUNCTIONS
URBAN PROPERTIES: 4,709
NON-URBAN PROPERTIES: 1,367

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
URBAN PROPERTY BASED FUNCTIONS				
STORMWATER DRAINAGE & FLOOD CONTROL (STANDARD COST): \$86.16				
Flood Prone Urban Buildings:	1.03	1.00	1.810	4.8
Levee Measure:	0.47	0.19	0.010	1.5
Stormwater Drainage Index:	1.46	1.00	1.000	45.9
Other:				0.0
			Rounded Total:	52
STREET & GUTTER CLEANING (STANDARD COST): \$40.33				
Non-Res. Urban Props (Excl. Non-Metro LGAs):	8.94%	6.51%	0.500	N/A
Urban Density:	2	1,250	0.200	0.0
Other:				0.0
			Rounded Total:	0
STREET LIGHTING (STANDARD COST): \$37.13				
Net Expenditure - Street Lighting:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	0
NON-URBAN PROPERTY BASED FUNCTION				
NOXIOUS PLANTS & PEST CONTROL (STANDARD COST): \$146.79				
Infestation:	Low-Moderate	N/A	N/A	10.0
Terrain:	35.0%	N/A	N/A	3.5
Other:				
			Rounded Total:	14

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Cooma-Monaro (S)****ISOLATION ALLOWANCE DATA**

POPULATION:	10,153
Adjusted Population (ceiling = 7,500):	7,500
Distance from Sydney:	406 km
Distance from Nearest Major Regional Centre:	117 km
Per Capita Allowance:	\$67.05
Western Zone Per Capita Allowance:	\$0.00
Total Per Capita Allowance:	\$80.45

REVENUE ALLOWANCE DATA

URBAN:	
No. of Properties:	4,709
Standard Value Per Property:	\$353,306
Council Value:	\$99,142
Standard Rate:	0.003704
NON-URBAN:	
No. of Properties:	1,367
Standard Value Per Property:	\$563,690
Council Value:	\$242,521
Standard Rate:	0.004484
PENSIONER REBATE ALLOWANCE:	
Pensioner Assessments as a % of Residential Assessments:	20.24%
Standard Percentage:	17.08%

LOCAL ROADS COMPONENT DATA 2017-18

Item	Council Measure
Population:	10,153
Local Road Length:	917 km
Length of Bridges on Local Roads:	875 m
Road Allowance (based on Road Length and Population):	\$1,009,226
Bridge Allowance (based on Bridge Length):	\$69,546
Total Allowance:	\$1,078,772

APPENDIX ALOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18**Cooma-Monaro (\$)****STANDARD COSTS USED IN THE CALCULATION OF EXPENDITURE ALLOWANCES**

FUNCTION	Council Value	State Standard
ADMINISTRATION AND GOVERNANCE	\$580.42	\$196.02
AERODROMES	\$0.00	\$3.34
AGED PERSONS' SERVICES	\$7.58	\$0.84
ANIMAL CONTROL	\$6.11	\$2.61
CEMETERIES	(\$3.05)	\$0.28
CHILDREN'S SERVICES	\$0.00	\$3.41
COMMUNITY SERVICES	\$19.40	\$12.15
CULTURAL FACILITIES	\$6.30	\$18.88
FIRE CONTROL AND EMERGENCY SERVICES	\$14.77	\$16.67
HEALTH AND SAFETY	\$6.30	\$9.39
LIBRARIES	\$20.19	\$34.73
NOXIOUS PLANTS AND PEST CONTROL (per non-urban property)	\$152.89	\$146.79
PLANNING & BUILDING	\$53.68	\$29.73
RECREATION	\$167.34	\$105.52
STORMWATER DRAINAGE AND FLOOD CONTROL (per urban property)	\$1.70	\$86.16
STREET AND GUTTER CLEANING (per urban property)	\$0.00	\$40.33
STREET LIGHTING (per urban property)	\$14.87	\$37.13

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Cooma-Monaro (S)****STANDARD COSTS USED IN THE CALCULATION OF EXPENDITURE ALLOWANCES**

FUNCTION	Council Value	State Standard
MAINTENANCE - URBAN LOCAL ROADS:		
a) Cost per length (km) of roads in urban/built-up areas for which council is responsible:	\$11,221.43	\$20,661.43
b) Urban length (m) per urban property:	22.67	11.03
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$0.00	\$387.07
d) Bridge length (m) per network km of roads:	0.18	0.81
MAINTENANCE - SEALED RURAL LOCAL ROADS:		
a) Cost per length (km) of sealed roads in non-urban areas for which the council is responsible:	\$15,106.15	\$4,997.57
b) Sealed rural length (m) per non-urban property:	32.74	301.01
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$0.00	\$630.62
d) Bridge length (m) per network km of roads:	7.44	2.26
MAINTENANCE - UNSEALED RURAL LOCAL ROADS:		
a) Cost per length (km) of unsealed roads in non-urban areas for which the council is responsible:	\$2,462.98	\$2,017.79
b) Unsealed rural length (m) per non-urban property:	560.2	681.42
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$0.00	\$98.52
d) Bridge length (m) per network km of roads:	0.68	0.62

***** NOTES *****

- * Unless otherwise shown, costs are per capita, based on ABS estimated resident population data (preliminary), as at 30 June 2016, as determined by the Australian Bureau of Statistics.
- * The "Council Value" is the unit cost for the Council based principally on 2015-16 Schedule 1 data.
- * State Standard costs are based on annual State averages costs, which are then averaged over 5 years (2011-12 to 2015-16). Annual average costs exclude extreme values in some cases. Standard costs are not intended to represent an ideal or optimal level of expenditure.
- * Information on the standard cost for each function is provided for information only and individual council values are generally not used to determine grants.

APPENDIX ALOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18**Snowy River (S)****POPULATION BASED FUNCTIONS**

POPULATION: 8,317

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
ADMINISTRATION AND GOVERNANCE (STANDARD COST): \$196.02				
Aboriginal and/or Torres Strait Islander:	1.03%	2.49%	0.005	0.0
Economies of Scale:	178	100	1.280	99.8
Non-English Speaking Background:	5.69%	18.45%	0.010	0.0
Population Distribution:	15.61	2.43	0.006	3.4
Population, Below Average Growth (5yr Average):	1.37%	1.37%	0.019	0.0
Sparsity (sq km per capita):	0.74	0.26	0.010	1.9
Other: <i>climatic condition</i>				2.0
			Rounded Total:	107
AERODROMES (STANDARD COST): \$3.34				
Net Expenditure - Aerodromes:	0.00	3.34	1.000	0.0
Other:				0.0
			Rounded Total:	0
AGED PERSON'S SERVICES (STANDARD COST): \$0.84				
Aged Persons (>=60 Yrs):	21.80%	21.18%	1.000	2.9
Pensioners:	9.23%	13.23%	1.200	0.0
Population Distribution:	15.61	2.43	0.002	0.9
Other:				0.0
			Rounded Total:	4
ANIMAL CONTROL (STANDARD COST): \$2.61				
Population Distribution:	15.61	2.43	0.070	37.9
Other:				0.0
			Rounded Total:	38
CEMETRIES (STANDARD COST): \$0.28				
Population Distribution:	15.61	2.43	0.015	8.2
Other:				0.0
			Rounded Total:	8

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Snowy River (S)****POPULATION BASED FUNCTIONS**

POPULATION: 8,317

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
CHILDREN'S SERVICES (STANDARD COST): \$3.41				
One Parent Families:	11.21%	16.28%	0.815	0.0
Population Distribution:	15.61	2.43	0.001	0.6
Pre-School Children (0-4 Yrs):	5.21%	6.46%	1.000	0.0
Other:				0.0
			Rounded Total:	1
COMMUNITY SERVICES (STANDARD COST): \$12.15				
Aboriginal and/or Torres Strait Islander:	1.03%	2.49%	0.116	0.0
Non-English Speaking Background:	5.69%	18.45%	0.125	0.0
Occupation:	25.08%	24.51%	0.750	1.7
Pension and Benefit Recipients (<60 Yrs):	17.74%	24.93%	0.965	0.0
Population Distribution:	15.61	2.43	0.001	0.7
Youth (15-24 Yrs):	14.18%	12.98%	0.200	1.8
Other:				0.0
			Rounded Total:	4
CULTURAL FACILITIES (STANDARD COST): \$18.88				
Duplication of Halls:	29.31	11.02	0.100	16.6
Non-Resident Use - Cultural Facilities:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	17
FIRE CONTROL & EMERGENCY SERVICES (STANDARD COST): \$16.67				
Duplication of SES Units	1.00	1.00	0.002	0.0
Floodboats:	0.12	0.05	0.026	3.3
Flood Prone Buildings:	0.00	24.05	0.027	0.0
Rural Fire Fighting Contributions	25.76	4.30	0.300	149.7
Urban Fire Levy:	4.17	11.03	0.800	0.0
Other:				0.0
			Rounded Total:	153
HEALTH & SAFETY (STANDARD COST): \$9.39				
Food Premises:	15.27	5.91	0.751	110.0
Non-English Speaking Background:	5.69%	18.45%	0.100	0.0
Population Distribution:	15.61	2.43	0.015	8.1
Public Toilets:	240	100	0.250	35.0
Vandalism and Crime:	0.43%	0.83%	0.022	0.0
Other:				0.0
			Rounded Total:	153

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Snowy River (S)****POPULATION BASED FUNCTIONS**

POPULATION: 8,317

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
LIBRARIES (STANDARD COST): \$34.73				
Aged Persons:	21.80%	21.18%	0.260	0.8
Non-English Speaking Background:	5.69%	18.45%	0.100	0.0
Non-Resident Borrowers:	102.75	116.63	1.000	0.0
Population Distribution:	15.61	2.43	0.018	9.8
Students - Full Time:	15.73%	19.45%	0.195	0.0
Other:				0.0
			Rounded Total:	11
PLANNING & BUILDING (STANDARD COST): \$29.73				
Development Activity:	65.61	58.58	0.250	3.0
Environmental Sensitivity:	1	1	0.060	0.0
Heritage:	1	1	0.028	0.0
Non-English Speaking Background:	5.69%	18.45%	0.040	0.0
Non-Residential Urban Properties:	5.74	2.52	0.200	25.5
Population Distribution:	15.61	2.43	0.017	9.2
Regional Centres and Secondary CBD's:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	38
RECREATION (STANDARD COST): \$105.52				
Age Structure (5-29 yrs):	33.22%	32.44%	0.750	1.8
Beach Lifesaving:	100	100	1.000	0.0
Climate Measure:	1,244	898	0.277	10.7
Day Trippers:	100	100	1.000	0.0
Duplication of Playing Fields:	1.61	1.12	0.460	20.3
Duplication of Pools:	60.81	12.34	0.060	23.6
Non-Resident Use - Recreation:	115	100	1.000	15.0
Non-Urban Measure:	100	100	1.000	0.0
Population Distribution:	15.61	2.43	0.003	1.8
Tidal/Rock Pools	0.00	1.28	0.005	0.0
Other:				0.0
			Rounded Total:	73

APPENDIX ALOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18**Snowy River (S)****PROPERTY BASED FUNCTIONS**

URBAN PROPERTIES: 5,006

NON-URBAN PROPERTIES: 897

FUNCTION Disability Measure	Council Measure	State Standard	Weighting	Disability Factor
URBAN PROPERTY BASED FUNCTIONS				
STORMWATER DRAINAGE & FLOOD CONTROL (STANDARD COST): \$86.16				
Flood Prone Urban Buildings:	1.00	1.00	1.810	0.0
Levee Measure:	0.00	0.19	0.010	0.0
Stormwater Drainage Index:	1.21	1.00	1.000	21.4
Other:				0.0
			Rounded Total:	21
STREET & GUTTER CLEANING (STANDARD COST): \$40.33				
Non-Res. Urban Props (Excl. Non-Metro LGAs):	9.53%	6.51%	0.500	N/A
Urban Density:	1	1,250	0.200	0.0
Other:				0.0
			Rounded Total:	0
STREET LIGHTING (STANDARD COST): \$37.13				
Net Expenditure - Street Lighting:	100	100	1.000	0.0
Other:				0.0
			Rounded Total:	0
NON-URBAN PROPERTY BASED FUNCTION				
NOXIOUS PLANTS & PEST CONTROL (STANDARD COST): \$146.79				
Infestation:	Low-Moderate	N/A	N/A	10.0
Terrain:	20.0%	N/A	N/A	2.0
Other:				
			Rounded Total:	12

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Snowy River (S)****ISOLATION ALLOWANCE DATA**

POPULATION:	8,317
Adjusted Population (ceiling = 7,500):	7,500
Distance from Sydney:	439 km
Distance from Nearest Major Regional Centre:	150 km
Per Capita Allowance:	\$84.58
Western Zone Per Capita Allowance:	\$0.00
Total Per Capita Allowance:	\$101.50

REVENUE ALLOWANCE DATA

URBAN:	
No. of Properties:	5,006
Standard Value Per Property:	\$353,306
Council Value:	\$114,205
Standard Rate:	0.003704
NON-URBAN:	
No. of Properties:	897
Standard Value Per Property:	\$563,690
Council Value:	\$288,882
Standard Rate:	0.004484
PENSIONER REBATE ALLOWANCE:	
Pensioner Assessments as a % of Residential Assessments:	9.14%
Standard Percentage:	17.08%

LOCAL ROADS COMPONENT DATA 2017-18

Item	Council Measure
Population:	8,317
Local Road Length:	766 km
Length of Bridges on Local Roads:	727 m
Road Allowance (based on Road Length and Population):	\$840,504
Bridge Allowance (based on Bridge Length):	\$57,783
Total Allowance:	\$898,287

APPENDIX ALOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18**Snowy River (S)****STANDARD COSTS USED IN THE CALCULATION OF EXPENDITURE ALLOWANCES**

FUNCTION	Council Value	State Standard
ADMINISTRATION AND GOVERNANCE	\$471.44	\$196.02
AERODROMES	\$0.00	\$3.34
AGED PERSONS' SERVICES	\$16.95	\$0.84
ANIMAL CONTROL	\$0.00	\$2.61
CEMETERIES	\$0.96	\$0.28
CHILDREN'S SERVICES	\$6.01	\$3.41
COMMUNITY SERVICES	\$11.06	\$12.15
CULTURAL FACILITIES	\$30.90	\$18.88
FIRE CONTROL AND EMERGENCY SERVICES	\$31.62	\$16.67
HEALTH AND SAFETY	\$16.83	\$9.39
LIBRARIES	\$23.09	\$34.73
NOXIOUS PLANTS AND PEST CONTROL (per non-urban property)	\$267.56	\$146.79
PLANNING & BUILDING	\$57.83	\$29.73
RECREATION	\$70.22	\$105.52
STORMWATER DRAINAGE AND FLOOD CONTROL (per urban property)	\$52.74	\$86.16
STREET AND GUTTER CLEANING (per urban property)	\$13.58	\$40.33
STREET LIGHTING (per urban property)	\$8.19	\$37.13

APPENDIX A**LOCAL GOVERNMENT GRANTS COMMISSION
DISABILITY CALCULATION SUMMARY - 2017-18****Snowy River (S)****STANDARD COSTS USED IN THE CALCULATION OF EXPENDITURE ALLOWANCES**

FUNCTION	Council Value	State Standard
MAINTENANCE - URBAN LOCAL ROADS:		
a) Cost per length (km) of roads in urban/built-up areas for which council is responsible:	(\$1,441.31)	\$20,661.43
b) Urban length (m) per urban property:	13.44	11.03
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$44.58	\$387.07
d) Bridge length (m) per network km of roads:	0.44	0.81
MAINTENANCE - SEALED RURAL LOCAL ROADS:		
a) Cost per length (km) of sealed roads in non-urban areas for which the council is responsible:	\$4,171.94	\$4,997.57
b) Sealed rural length (m) per non-urban property:	255.46	301.01
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$462.58	\$630.62
d) Bridge length (m) per network km of roads:	1.60	2.26
MAINTENANCE - UNSEALED RURAL LOCAL ROADS:		
a) Cost per length (km) of unsealed roads in non-urban areas for which the council is responsible:	\$1,727.59	\$2,017.79
b) Unsealed rural length (m) per non-urban property:	523.3	681.42
c) Cost of maintenance of bridges and major culverts per network km of roads:	\$259.88	\$98.52
d) Bridge length (m) per network km of roads:	0.70	0.62

***** NOTES *****

- * Unless otherwise shown, costs are per capita, based on ABS estimated resident population data (preliminary), as at 30 June 2016, as determined by the Australian Bureau of Statistics.
- * The "Council Value" is the unit cost for the Council based principally on 2015-16 Schedule 1 data.
- * State Standard costs are based on annual State averages costs, which are then averaged over 5 years (2011-12 to 2015-16). Annual average costs exclude extreme values in some cases. Standard costs are not intended to represent an ideal or optimal level of expenditure.
- * Information on the standard cost for each function is provided for information only and individual council values are generally not used to determine grants.

APPENDIXES B, C and D

APPENDIX B

LOCAL GOVERNMENT GRANTS COMMISSION EXPLANATION OF CALCULATION SUMMARIES – 2017-18

INTRODUCTION

The Commission's general purpose component of the grant calculations is made up of two elements. The revenue element attempts to assess the relative revenue raising capacity of councils. The expenditure element recognises the additional costs faced by councils in providing services because of inherent cost disabilities. Council policy decisions are not considered.

REVENUE ALLOWANCES

The calculation of revenue allowances by the Commission seeks to compensate councils for their relative revenue raising capacity. Land values are used to rank councils along a continuum ranging from those with the strongest capacity to raise revenue to those that have the weakest capacity.

On the basis of aggregated property information purchased by the Commission from the Valuer-General and information submitted by councils to the Office of Local Government (the Office) in the annual financial data return, the total rateable valuation figure for each council is calculated to a common base date, as at 1 July each year. For the 2017-18 calculations the total figure is an average valuation for the years 2013, 2014, and 2015 with the 2013 and 2014 figures adjusted for changes in the number of properties between these years and 2015. Only the value of rateable property is used in the calculations. Councils are not penalised for non-rateable properties.

The property numbers and valuations for each council are split into urban and non-urban components on the basis of the Office's annual financial data return.

For the urban component a State average property value is determined based on the weighted average of all councils' values. An average rate-in-the-dollar is determined by dividing the State-wide rate revenue by the State-wide valuation.

The average value of urban properties for the council is compared to the State average value. The difference is multiplied by the number of properties and the State average rate-in-the-dollar to calculate a revenue allowance for urban properties. If the average value of urban properties for the council is higher than the State average the allowance is negative, if it is lower the allowance is positive.

A similar calculation is undertaken for non-urban properties.

The revenue allowances for the urban and non-urban components of each council are then added to give the total notional revenue allowance. The notional revenue allowances are then discounted to give them the same weight as the expenditure allowances.

In the absence of suitable alternative measures for assessing the relative capacity of councils to raise revenue the Commission considers the use of land values, with its discounting concession, to be the most equitable method of comparative assessment. Property values provide a good and simple indicator of the relative strength of the economic base of different local government areas. Valuations are somewhat sensitive to market fluctuations across all council areas brought about by circumstances such as drought, population growth or decline, and rising or falling economic activity.

APPENDIX B

LOCAL GOVERNMENT GRANTS COMMISSION EXPLANATION OF CALCULATION SUMMARIES – 2017-18

The general formula for the calculation of revenue allowances is:

$$\text{Revenue Allowance} = Nc \times ts \times (Ts - Tc)$$

where:

Nc	=	number of properties (assessments)
ts	=	standard rate-in-the-dollar
Ts	=	standard value per property
Tc	=	council's value per property.

The standard per property (**Ts**) is calculated as follows:

$$Ts = \frac{\text{sum of rateable values for all councils}}{\text{sum of number of properties for all councils}}$$

The standard tax rate (**ts**) is calculated as follows:

$$ts = \frac{\text{sum of general purpose revenue of all councils}}{\text{sum of rateable values of all councils}}$$

The accompanying summary provides details of the calculation of urban and non-urban revenue allowance for council. Individual council's figures are provided to each council.

PENSIONER REBATE ALLOWANCES

An additional allowance is calculated which compensates councils for the cost of the mandatory rebate of rates to pensioners. Positive allowances are calculated for councils with an above average number of eligible assessments as a proportion of residential assessments.

The general formula used to calculate the **pensioner rebate allowance** is:

$$\text{Pensioner Rebate Allowance} = Rc \times Nc \times (Pc - Ps)$$

where:

Rc	=	the standardised rebate per property for the council
Nc	=	the number of residential properties
Pc	=	the proportion of eligible pensioner assessments for the council
Ps	=	the proportion of eligible pensioner assessments for <u>all</u> councils.

APPENDIX B

LOCAL GOVERNMENT GRANTS COMMISSION EXPLANATION OF CALCULATION SUMMARIES – 2017-18

The standardised rebate for council (Rc) in the above formula is:

$$\text{Standardised Rebate for Council} = 0.25 \times Vc \times Ts$$

where:

Vc = the average value per residential property in the council

Ts = the standard rate-in-the-dollar for residential properties.

The maximum value for **Rc** is set at \$125.00.

The attached summary provides details of the calculation of the pensioner rebate allowance for council.

EXPENDITURE ALLOWANCES

Expenditure disability allowances attempt to compensate councils for the extent to which it is expected to cost the council more than the standard council to provide a service due to inherent factors. The policy decisions of councils concerning the level of service provided or whether or not there is a service provided at all, are not considered (effort neutral).

These allowances are the dollar values of the estimated additional costs due to disabilities considered by the Commission. There are three elements in the calculation of disability allowances:

Unit: measures the number of units to be serviced. For the functions covered by the accompanying notes the units are population (estimated resident population), or urban properties, or non-urban properties, or road and bridge lengths.

Standard Cost: is generally five-yearly annual average of net operating costs, per unit, by all councils in the State, for the years 2011-12 to 2015-16.

Disability Factor: estimate of the additional cost, expressed as a percentage, of providing a standard service due to inherent disabilities (see the following section for details).

Expenditure disability allowances are calculated on the following general formula:

$$\text{Expenditure Disability Allowances} = \text{Unit} \times \text{Standard Cost} \times \text{Disability Factor}$$

Disability allowances for some functions are discounted to take account of specific purpose grants for those functions.

APPENDIX B

LOCAL GOVERNMENT GRANTS COMMISSION EXPLANATION OF CALCULATION SUMMARIES – 2017-18

DISABILITY FACTORS

Disability factors are used in the calculation of expenditure allowances as part of the expenditure component of the calculations.

A disability factor is the Commission's estimate of the additional cost, expressed as a percentage, of providing a standard service due to inherent disabilities.

Inherent disabilities are characteristics of the council area beyond council control. The Commission does not compensate councils for cost differences, which arise due to policy decisions of council, management performance, or accounting differences.

For each function the Commission has identified a number of variables that are considered to be the most significant in influencing a council's expenditure on that particular function. These variables are termed disabilities. In addition to disabilities identified by the Commission, "other" disabilities relating to individual councils may be determined when the Commission visits councils for public hearings or through council submissions.

The accompanying notes provide details of the disabilities considered for each function under a series of headings. These are:

Disability:	specifies the variable.
Recognises:	explains the reason for including the disability and its relationship to the standardised council expenditure.
Measure:	explains the basis on which the disability is assessed.
Source:	the source of the data used for the determined factor.
Standard Value:	the value with which individual council values are compared. It is usually the average value for the State.
Weightings:	relates to the variation in the disability to the estimated additional cost due to that disability. The weightings have generally been determined by establishing a factor for the maximum disability based on a sample of councils and/or through discussion with appropriate organisations.

The general approach for calculating a **disability factor** is to take each disability relating to a function and apply the following formula:

$$\text{DisabilityFactor} = \left[\frac{\text{CouncilValue}}{\text{Standard}} - 1 \right] \times 100 \times \text{Weighting}$$

For some disabilities the factor is a set percentage. Where this occurs in the notes the weighting is shown as N/A.

Generally, negative scores are not calculated, that is, if the council score is less than the standard, a factor of 0 is substituted. Where negative disability factors are calculated it is shown in the summary. The factors calculated for each disability are then added together and rounded to give a total disability factor for the function.

APPENDIX B

LOCAL GOVERNMENT GRANTS COMMISSION EXPLANATION OF CALCULATION SUMMARIES – 2017-18

ISOLATION

In addition to the calculation of allowances for each expenditure function, the Commission also calculates an allowance for additional costs associated with isolation for all non-metropolitan councils. The isolation allowance is calculated using regression analysis of the additional costs of isolation reported by council and their distance from Sydney and nearest major regional centre. An additional component is included which specifically recognises the additional industrial obligations of councils in western NSW.

A population ceiling of 7,500 was used when calculating the total allowance. This recognises the economies of scale that exist in larger centres, which reduce the cost effects of isolation.

Calculations for **Isolation allowances** are based on the following formula:

$$\text{Isolation Allowance} = P_c \times (D_{sc} \times K_1 + D_{nc} \times K_2 + I_c)$$

where:

P_c = the adjusted population for each council (7,500 ceiling).

D_{sc} = the distance from council's administrative centre to Sydney.

D_{nc} = the distance from council's administrative centre to the nearest major regional centre.

I_c = the additional per capita allowance due to industrial award obligations (if applicable).

K1 and K2 are constants.

The summary attached provides details of the isolation allowance calculated for council.

STANDARD UNIT COSTS

The calculation of allowances for expenditure disabilities is generally based on a five year rolling average of annual state standard unit costs for each expenditure function. Standard unit costs are based on state average unit cost by aggregating the net costs for each function and dividing this by the number of units in the state. The net costs are sourced from Special Schedule 1, reported by councils to the Office in their financial reports.

The five year averaged standard unit costs for the functions considered in the calculation of grants for 2017-18 are shown on pages 6-7 in the enclosed Appendix A. These standard unit costs do not represent an ideal or optimal level of expenditure. Council's most recent annual unit costs are also shown in Appendix A for information. **Generally, whether a council's unit costs are greater or less than the standard unit cost does not have any direct effect on the grant to the council.** The standard unit costs simply determine the weightings for the particular function in relation to other functions in the calculation of allowances for expenditure disabilities.

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APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

ADMINISTRATION

Aboriginal or Torres Strait Islander

Recognises: additional costs for councils with a significant aboriginal population.
 Measure: proportion of the population Aboriginal or Torres Strait Islander.
 Source: Australian Bureau of Statistics (ABS), Census 2011, usual residents profile.
 Standard: 2.49%
 Weighting: 0.005

Economies of Scale

Recognises: higher per capita costs of administration for councils with small populations.
 Measure: a population based score of 100 to 225 is used with councils whose population is greater than 20,000 receiving nil disability and those whose population is less than 1,250 receiving the maximum disability score.
 Source: ABS, Regional Population Growth, Australia, 2015-16.
 Standard: 100
 Weighting: 1.28

Non-English Speaking Background

Recognises: additional costs of information provision.
 Measure: proportion of population born in non-English speaking countries.
 Source: ABS, Census 2011, usual residents profile.
 Standard: 18.45%
 Weighting: 0.01

Population Distribution

Recognises: costs of staff travel and duplication of services.
 Measure: the larger of:
 (a) the sum of the population of centres greater than 200 multiplied by their distance from council headquarters(km) divided by the overall council population;
 or
 (b) according to population:
 between 50,000 and 100,000 3.65
 between 100,000 and 150,000 4.87
 greater than 150,000 7.30
 Source: ABS, Census 2011, Census counts for small areas (place of enumeration)
 Standard: 2.43
 Weighting: 0.006

Population: Below Average Growth

Recognises: additional cost relativities resulting from below average growth.
 Measure: annual average percentage change in population over the previous five years.
 Source: ABS, Regional Population Growth, Australia, 2015-16.
 Standard: 1.37%
 Weighting: 0.019

Sparsity

Recognises: additional costs due to large council areas.
 Measure: area (sq km) per capita.
 Source: ABS, Regional Population Growth, Australia, 2014-15.
 Standard: 0.258
 Weighting: 0.01

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

AERODROMES

Net Expenditure: Aerodromes

Recognises:	above average expenditure, which is generally beyond council control.
Measure:	adjusted net expenditure per capita averaged over 5 years.
Source:	Office of Local Government, Special Schedule 1 (2011-12 to 2015-16); ABS, Regional Population Growth, Australia, 2015-16.
Standard:	3.34
Weighting:	1.0 (maximum DF of 497)

AGED PERSONS' SERVICES

Aged Persons (60 years and over)

Recognises:	additional need for services.
Measure:	proportion of the population aged 60 years and over.
Source:	ABS, Population by Age and Sex - 30 June 2015.
Standard:	21.18%
Weighting:	1.0

Pensioners

Recognises:	additional council responsibility for aged services.
Measure:	proportion of the population receiving the aged pension, and mature age allowances.
Source:	Centrelink, Customers by Postcodes - June 2008, (Recipients of Pensions, Benefits and Family Payments). Postcode data adjusted for council boundaries using ABS concordance.
Standard:	13.23%
Weighting:	1.2

Population Distribution

Recognises:	costs of staff travel and duplication of services.
Measure:	as for Administration.
Source:	ABS, Census 2011, census counts for small areas.
Standard:	2.43
Weighting:	0.002

ANIMAL CONTROL

Population Distribution

Recognises:	costs of staff travel and duplication of services.
Measure:	as for Administration.
Source:	ABS, Census 2011, census counts for small areas.
Standard:	2.43
Weighting:	0.070

CEMETERIES

Population Distribution

Recognises:	costs of staff travel and duplication of services.
Measure:	as for Administration.
Source:	ABS, Census 2011, census counts for small areas.
Standard:	2.43
Weighting:	0.015

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

CHILDREN'S SERVICES

One Parent Families

Recognises: additional need for child care facilities.
 Measure: proportion of families classified as "one parent family".
 Source: ABS, Census 2011 of Population and Housing, selected social and housing characteristics for statistical local areas.
 Standard: 16.28%
 Weighting: 0.815

Population Distribution

Recognises: costs of staff travel and duplication of services.
 Measure: as for Administration.
 Source: ABS, Census 2011, census counts for small areas.
 Standard: 2.43
 Weighting: 0.001

Pre-School Children (0-4 years)

Recognises: additional need for services targeted at this age group which makes up the bulk of local government involvement in children's services.
 Measure: proportion of the population in 0-4 years age group.
 Source: ABS, Population by Age and Sex - 30 June 2015.
 Standard: 6.46%
 Weighting: 1.0

COMMUNITY SERVICES

Aboriginal or Torres Strait Islander

Recognises: additional costs for councils with a significant aboriginal population.
 Measure: proportion of the population Aboriginal or Torres Strait Islander.
 Source: ABS, Census 2011, usual residents profile.
 Standard: 2.49%
 Weighting: 0.116

Non-English Speaking Background

Recognises: additional costs of information provision.
 Measure: proportion of population born in non-English speaking countries.
 Source: ABS, Census 2011, usual residents profile.
 Standard: 18.45%
 Weighting: 0.125

Occupation

Recognises: additional council responsibility for community services in areas of low socio-economic status.
 Measure: proportion of the employed persons in lower socio-economic occupational groups.
 Source: ABS, Census 2011, usual residents profile.
 Standard: 24.51%
 Weighting: 0.750

Pension and Benefit Recipients

Recognises: low income persons as a target group for community services.
 Measure: proportion of the population receiving social security pensions.
 Source: Centrelink, Customers by Postcodes - June 2008, (recipients of pensions, benefits and family payments). Postcode data adjusted for council boundaries using ABS concordance.
 Standard: 24.93%
 Weighting: 0.965

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

Population Distribution

Recognises: costs of staff travel and duplication of services.
Measure: as for Administration.
Source: ABS, Census 2011, census counts for small areas.
Standard: 2.43
Weighting: 0.001

Youth (15-24 years)

Recognises: youth as a target group for community services.
Measure: proportion of population in the 15-24 years age group.
Source: ABS, Population by Age and Sex - 30 June 2015.
Standard: 12.28%
Weighting: 0.200

CULTURAL FACILITIES

Duplication of Halls

Recognises: the additional costs related to the provision of facilities in a number of centres of less than optimum population size.
Measure: number of licensed halls multiplied by the standard net loss per hall divided by the LGA population for non-metropolitan councils.
Source: Grants Commission Return, 2014-15; Office of Local Government, Special Schedule 1, 2015-16; ABS, Regional Population Growth, Australia, 2015-16.
Standard: 11.02
Weighting: 0.1 (maximum DF of 50)

Non-Resident Use - Cultural Facilities

Recognises: additional cost of the provision of higher order facilities in regional centres.
Measure: maximum score of 150 based on Commission assessment.
Source: Grants Commission.
Standard: 100
Weighting: 1.0

FIRE CONTROL AND EMERGENCY SERVICES

Duplication of SES Units

Recognises: cost of duplication of SES units.
Measure: index based on the population of each centre with an SES unit located more than 10 km from the administrative centre multiplied by its distance from the administrative centre divided by the total population of the LGA.
Source: SES Headquarters; ABS, Census 2011, census counts for small areas.
Standard: 1.0
Weighting: 0.002

Flood Boats

Recognises: requirement for flood rescue in non-urban areas.
Measure: number of SES registered flood boats per thousand of population.
Source: Grants Commission return, 2015-16; ABS, Regional Population Growth, Australia, 2015-16.
Standard: 0.053
Weighting: 0.026

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

Flood Prone Buildings

Recognises: flood rescue as the major area of SES expenditure.
 Measure: number of buildings subject to mainstream flooding (1 in 100 years) per thousand of population.
 Source: Grants Commission return, 2015-16; ABS, Regional Population Growth, Australia, 2015-16.
 Standard: 24.05
 Weighting: 0.027

Rural Fire Fighting Contributions

Recognises: contributions to the rural fire fighting fund.
 Measure: average contributions to the NSW Rural Fire Service for a five year period, per capita (2011-12 - 2015-16).
 Source: Ministry for Police and Emergency Services.
 Standard: 4.30
 Weighting: 0.3

Urban Fire Levy

Recognises: payment of this levy is the major local government expenditure item.
 Measure: per capita NSW Fire Rescue contributions.
 Source: Ministry for Police and Emergency Services, 2015-16.
 Standard: 11.03
 Weighting: 0.8

HEALTH AND SAFETY

Food Premises

Recognises: additional inspection costs in areas with high proportions of food premises.
 Measure: proportion of food premises per thousand of population.
 Source: Grants Commission return, 2015-16.
 Standard: 5.91
 Weighting: 0.751 (maximum DF of 110)

Non-English Speaking Background

Recognises: population of non-English speaking backgrounds as a target group for health services.
 Measure: proportion of population born in non-English speaking countries.
 Source: ABS, Census 2011, usual residents profile.
 Standard: 18.45%
 Weighting: 0.100

Population Distribution

Recognises: costs of staff travel and duplication of services.
 Measure: as for Administration.
 Source: ABS, Census 2011, census counts for small areas.
 Standard: 2.43
 Weighting: 0.015

Public Toilets

Recognises: significant variation in Council expenditure related to non-resident use.
 Measure: score based on expenditure and Commission's assessment of need to provide public toilets.
 Source: Office of Local Government, Special Schedule 1, 2015-16.
 Standard: 100
 Weighting: 0.25

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

Vandalism and Crime

Recognises:	additional costs associated with repairing damage to public property.
Measure:	malicious damage to property incidents per capita.
Source:	NSW Bureau of Crime Statistics and Research, 2015.
Standard:	0.83%
Weighting:	0.022

LIBRARIES

Aged Persons (60 years and over)

Recognises:	additional cost of providing specialist services and materials.
Measure:	proportion of the population aged 60 years and over.
Source:	ABS, Population by Age and Sex - 30 June 2015.
Standard:	21.18%
Weighting:	0.26

Non-English Speaking Background

Recognises:	additional costs of information provision.
Measure:	proportion of population born in non-English speaking countries.
Source:	ABS, Census 2011, usual residents profile.
Standard:	18.45%
Weighting:	0.1

Non-Resident Borrowers

Recognises:	additional cost of providing services for non-residents.
Measure:	percentage of non-resident borrowers plus 100.
Source:	State Library of NSW, 2013-14.
Standard:	116.63
Weighting:	1.0 (maximum DF of 10)

Population Distribution

Recognises:	costs of staff travel and duplication of services.
Measure:	as for Administration.
Source:	ABS, Census 2011, census counts for small areas.
Standard:	2.43
Weighting:	0.018

Students: Full Time

Recognises:	students as a major user group of library services.
Measure:	proportion of the population attending an educational institution full time.
Source:	ABS, Census 2011, usual residents profile.
Standard:	19.45%
Weighting:	0.195

PLANNING AND BUILDING SERVICES

Development Activity

Recognises:	that expenditure is related to additional costs of inspection, certification, etc.
Measure:	per capita estimate (R) based on a regression of expenditure on planning and building control, number of building approvals for new dwellings per capita (a) and the total value of non-residential building approvals per capita (b).

$$\text{The formula is: } R = 58.19 + (730.36 \times a) + (0.00227 \times b)$$

Source:	Office of Local Government, Special Schedule 1, 2015-16; ABS, Building Approvals, June 2016.
Standard:	58.58
Weighting:	0.25 (maximum DF of 20)

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

Environmental Sensitivity

Recognises: additional costs of being classified as "environmental sensitive" by the Environmental Protection Authority.
 Measure: councils are divided into 5 categories on the basis of environmentally sensitive areas (extreme 24%, very high 18%, high 12%, above average 6%, average and below 0).
 Source: Environmental Protection Authority and Grants Commission.
 Standard: 1
 Weighting: 0.06

Heritage

Recognises: additional costs due to greater complexity in plan preparation and development control.
 Measure: councils are divided into 5 categories on the basis of heritage considerations and environmentally sensitive areas, as assessed by the Commission (extreme 11%, very high 8%, high 6%, above average 3%, average and below 0).
 Source: Heritage Council and Grants Commission.
 Standard: 1
 Weighting: 0.028

Non-English Speaking Background

Recognises: additional costs of information provision.
 Measure: proportion of population born in non-English speaking countries.
 Source: ABS, Census 2011, usual residents profile.
 Standard: 18.45%
 Weighting: 0.04

Non-Residential Urban Properties

Recognises: greater complexity of processing development applications.
 Measure: number of urban properties which are classified as "business" per hundred of population.
 Source: Office of Local Government, Financial Data Return, 2015-16.
 Standard: 2.52
 Weighting: 0.2 (maximum DF of 30)

Population Distribution

Recognises: costs of staff travel and duplication of services.
 Measure: as for Administration.
 Source: ABS, Census 2011, census counts for small areas.
 Standard: 2.43
 Weighting: 0.017

Regional Centres and Secondary CBDs

Recognises: additional costs of forward planning generally related to non-resident use.
 Measure: range of disabilities between 0 and 24 recognising extra planning expenditure necessary.
 Source: Department of Infrastructure, Planning and Natural Resources.
 Standard: 100
 Weighting: 1.0

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

RECREATION

Age Structure (5-29 years)

Recognises: additional need for facilities due to a high proportion of population in the sport-playing age group.
 Measure: proportion of the population in the 5-29 years age group.
 Source: ABS, Population by Age and Sex - 30 June 2015.
 Standard: 32.44%
 Weighting: 0.75

Beach Lifesaving

Recognises: cost of additional facilities associated with beaches, principally lifesavers.
 Measure: score based on Commission assessment.
 Source: Office of Local Government, Special Schedule 1, 2015-16.
 Standard: 100
 Weighting: 1.0

Climate Measure

Recognises: additional costs in watering on low rainfall areas and the cost of mowing in high rainfall areas.
 Measure: (a) low rainfall – the difference between the council's annual average rainfall (mm) and NSW highest rainfall (1898 mm); and
 (b) high rainfall – councils with rainfall above 1330 mm receive 5% disability.
 Source: Bureau of Meteorology, Rainfall Statistics, Australia, 1977 (minimum 30 years of observations)
 Standard: a) 898 b) 0
 Weighting: a) 0.277 b) N/A

Day Trippers

Recognises: additional costs related to the provision of facilities for one-off day visitors.
 Measure: index in the range 100-105 determined by the Grants Commission.
 Source: Tourism Research Australia and the Grants Commission.
 Standard: 100
 Weighting: 1.0

Duplication of Playing Fields

Recognises: additional costs related to the provision of facilities in a number of centres of less than optimum population size.
 Measure: index based on the per capita area of playing fields that should be provided taking each urban centre above 200 population in turn, based on Research Study 1, Sydney Region Open Space Survey, NSW Planning and Environment Commission, 1975.
 Source: ABS, 2001 Census, census counts for small areas.
 Standard: 1.112
 Weighting: 0.460

Duplication of Pools

Recognises: additional costs related to the provision of facilities in a number of centres of less than optimum population size.
 Measure: number of pool complexes operated by council multiplied by the standard net loss per pool divided by population.
 Source: Grants Commission return, 2015-16; Office of Local Government, Special Schedule 1, 2015-16; ABS, Regional Population Growth, Australia, 2015-16.
 Standard: 12.34
 Weighting: 0.06

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

Non-Resident Use - Recreation

Recognises:	costs of additional services required in regional and tourist centres.
Measure:	index generally in range 100-125 determined by the Commission based on a sampling of councils.
Source:	Grants Commission.
Standard:	100
Weighting:	1.0

Non-Urban Measure

Recognises:	cost advantages of councils whose residents have the opportunity to use facilities provided in adjacent centres.
Measure:	index in a range 80-100 determined by the Commission based on a sampling of councils (negatives are calculated).
Source:	Grants Commission.
Standard:	100
Weighting:	1.0

Population Distribution

Recognises:	cost of staff travel and duplication of services.
Measure:	as for Administration.
Source:	ABS, Census 2011, census counts for small areas.
Standard:	2.43
Weighting:	0.003

Tidal/Rock Pools

Recognises:	additional maintenance costs associated with tidal rock pools.
Measure:	number of rock/tidal pools operated by the councils multiplied by the stand net loss per pool divided by population.
Source:	Grants Commission return, 2015-16; ABS, Regional Population Growth, Australia, 2015-16.
Standard:	1.28
Weighting:	0.005

STORMWATER DRAINAGE AND FLOOD CONTROL

Flood Prone Urban Buildings

Recognises:	need for expenditure is proportional to the number of flood prone buildings.
Measure:	based on the number of flood prone urban buildings subject to mainstream flooding (1 in 100 years) as a proportion of the total urban properties.
Source:	Grants Commission return, 2015-16.
Standard:	1.0
Weighting:	1.81

Levee Measure

Recognises:	maintenance of levee banks.
Measure:	metres of levee banks per urban property.
Source:	Grants Commission return, 2015-16.
Standard:	0.188
Weighting:	0.01

APPENDIX C

LOCAL GOVERNMENT GRANTS COMMISSION DETAILS OF DISABILITY FACTORS – 2017-18

Stormwater Drainage Index

Recognises:	variation in cost of construction and maintenance related to a number of variables considered to be most significant.
Measure:	index provided by consultants after studying rainfall, urban land use and impervious area, ground slope, associated construction costs, soil and geology, and the age of the stormwater system.
Source:	Stormwater drainage return, 1987.
Standard:	1.0
Weighting:	1.0

STREET AND GUTTER CLEANING

Non-Residential Urban Properties

Recognises:	increased amounts of litter collected from commercial areas.
Measure:	proportion of urban properties classified as "business". The measure excludes non-metropolitan councils.
Source:	Office of Local Government, Financial Data Return, 2015-16.
Standard:	6.51%
Weighting:	0.5 (maximum DF of 20)

Urban Density

Recognises:	additional maintenance costs of facilities in densely populated areas.
Measure:	population divided by the total area of LGA in square kilometres.
Source:	ABS, Regional Population Growth, Australia, 2014-15.
Standard:	1,250
Weighting:	0.2 (maximum DF of 20)

STREET LIGHTING

Net Expenditure: Street Lighting

Recognises:	additional expenditure largely beyond the control of individual councils.
Measure:	adjusted net expenditure per urban property averaged over 5 years.
Source:	Office of Local Government, Special Schedule 1, 2011-12 - 2015-16; NSW Roads and Maritime Services, traffic route light subsidy scheme, 2015-16.
Standard:	100
Weighting:	1.0

NOXIOUS PLANTS AND PEST CONTROL

Infestation

Recognises:	increased costs in areas of high weed infestation.
Measure:	Noxious Plant Advisory Board index and the Grants Commission.
Source:	Department of Agriculture
Standard:	Low
Weighting:	N/A

Terrain

Recognises:	additional costs related to access and constraints on using machinery in mountainous areas.
Measure:	disability factors based on the proportion of council areas classified "mountainous" or "hilly".
Source:	CSIRO
Standard:	N/A
Weighting:	N/A

APPENDIX D

LOCAL GOVERNMENT GRANTS COMMISSION GUIDELINES FOR SPECIAL SUBMISSIONS IN RELATION TO THE 2018-19 GRANTS

1. GENERAL

All submissions **must** be consistent with the principles which have been adopted by the Commission. The principles are attached in **Table 1**.

Information in the submissions must relate to the year ended 30 June 2017, in order to be compatible with the Grants Commission's **Return of General Information** for that year.

Only recurrent costs should be included; capital costs are to be excluded.

Submissions should be based only on inherent disabilities and problems, which are outside Council's control. **Additional costs that result from deliberate policy decisions made by Council to provide a higher than average standard of service are not considered disabilities.**

Information provided on disabilities should be brief and the costing estimates of the disabilities should be as accurate as is practicable to determine.

It is expected that submissions will generally relate to expenditure disabilities.

If you have further questions, then please contact:
Helen Pearce on (02) 4428 4131 or by email at helen.pearce@olg.nsw.gov.au

Submissions should be e-mailed to the Commission at grants@olg.nsw.gov.au as soon as possible, but no later than **30 November 2017**.

2. EXPENDITURE DISABILITIES

(a) Content

Details of the Commission's expenditure calculations for the Council area are enclosed (See **Appendix A**). This information should be used in assessing whether to make a submission on expenditure disabilities; that is, in assessing whether the particular disabilities of council's area are **already recognised** in the formula. If council believes that disabilities **other than those currently identified by the formula** have an impact on the cost of providing services, then this should be substantiated in the submission.

Similarly, if council believes that the impact of any disability already identified by the Commission is greater than indicated, then the case should be argued in the submission.

It should be noted that water, sewerage and waste management services are not considered.

APPENDIX D

LOCAL GOVERNMENT GRANTS COMMISSION GUIDELINES FOR SPECIAL SUBMISSIONS IN RELATION TO THE 2018-19 GRANTS

(b) Required Format

Table 2 shows the **REQUIRED FORMAT** for submissions on expenditure disabilities. Submissions should be **brief** and include:

- (1) the function affected (using the Commission's functional heading);
- (2) a **brief** description of the disability;
- (3) a **brief** account of the action taken, or which would need to be taken, to deal with that disability;
- (4) the **estimated additional cost** impact of that action.

Where a disability factor affects costs across a number of council functions, separate details should be used showing the cost impact in each function area.

(c) Outcome

Where the Commission recognises an additional disability raised in a submission, which is particular to one or a small number of councils, their disability factors for that function will be adjusted in the "other" category.

Where an additional disability is recognised which has an impact on a number of councils, the methodology will be adjusted and all councils will be affected according to the extent of the relevant disability.

3. REVENUE DISABILITIES

While the approved principles generally bind the Commission's operation in this area, councils may wish to comment on the current methodology if it is considered that these unfairly disadvantage them.

It should be noted that non-rateable properties are taken into consideration in the Commission's calculation automatically. The loss of revenue from non-rateable properties does not need to be specified in the submission. However, additional net costs associated with services to non-rateable properties may be raised as an expenditure disability.

APPENDIX D

**LOCAL GOVERNMENT GRANTS COMMISSION
GUIDELINES FOR SPECIAL SUBMISSIONS IN RELATION TO THE 2018-19 GRANTS**

TABLE 1

APPROVED PRINCIPLES

1. General purpose grants to local governing bodies will be allocated as far as practicable on a full equalisation basis as defined in the *Local Government (Financial Assistance) Act 1995*; that is a basis which attempts to compensate local governing bodies for differences in expenditure required in the performance of their functions and in their capacity to raise revenue.
2. The assessment of revenue and expenditure allowances of local governing bodies will, as far as is practicable, be independent of the policy or practices of those bodies in raising revenue and the provision of services.
3. Revenue raising capacity will primarily be determined on the basis of property values; positive and negative allowances relative to average standards may be calculated.
4. Revenue allowances may be discounted to achieve equilibrium with expenditure allowances.
5. Generally for each expenditure function an allowance will be determined using recurrent cost; both positive and negative allowances relative to average standards may be calculated.
6. Expenditure allowances will be discounted to take account of specific purpose grants.
7. Additional costs associated with non-resident use of services and facilities will be recognised in determining expenditure allowances.

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LOCAL GOVERNMENT GRANTS COMMISSION
GUIDELINES FOR SPECIAL SUBMISSIONS IN RELATION TO THE 2018-19 GRANTS

TABLE 2
REQUIRED FORMAT FOR SUBMISSIONS ON
EXPENDITURE DISABILITIES

EXAMPLE:

Function:

Planning and Building Services

Disability:

Land Slip

Description and Response:

A proportion of the council area is subject to land slip. This causes **additional** work in the processing of development applications (DAs), estimated to be an additional 3 hours per application.

Cost Impact:

450 DAs from potential land slip areas were processed in 2016-17.

The **additional** cost is estimated as:-

450 applications x 3 hours/application x \$45/hour = **\$60,750**