

Fire Management Plan

Clarence Correctional Centre

313 Avenue Road | Lavadia | NSW | 2462

24 November 2021



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1 Executive Summary

Site Address

**313 Avenue Road
Lavadia NSW 2462**

Lot Nos.

Lot 26 DP751376 and Lot 1 DP 1190399

Local Government Area

Clarence Valley Council

Fire Danger Index Area Name

Far North Coast Fire Area: 1

Bushfire Prone Land

Yes

Source methodology/s

NSW Rural Fire Service (2006), Planning for
Bushfire Protection Guidelines.

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3 In case of emergency

All custodial and non-custodial staff are required to contact Master Control in the first instance an incident is identified. Master Control will respond to the incident in accordance with the Local Operating Procedure 'Emergency Response Model'.

MASTER CONTROL: 6604 1897 / 1898 / 1899

3.1 Other internal contacts

Service	Telephone
Facilities Maintenance On-Call	0437 341 634
Incident Control Centre	6604 1887

3.2 External organisations contacts

Organisation	Telephone
Rural Fire Service	6644 5135
Grafton Police	6642 0222
Grafton Base Hospital	6640 2222
Clarence Valley Council	6643 0200
SafeWork NSW	131 050
NSW Environmental Protection Agency	131 555
Poisons Information Line	131 126

4 Introduction

Serco Australia Pty Limited has been contracted by Corrective Services NSW to operate the Clarence Correctional Centre for a period of 20-years commencing 1 July 2020.

This Fire Management Plan is a key workplace document that has legal standing and as such should be referred to for all management of fire incidents at the Clarence Correctional Centre.

This Fire Management Plan has been prepared to support the operations of Clarence Correctional Centre. It is based on the Development Condition of Consent D09 issued by the Department of Planning and Environment (DPE) requiring:

Prior to occupation, the Applicant must prepare a Fire Management Plan in consultation with NSW RFS Clarence Valley Control Centre to address:

- a) Strategy for managing grass fires;*
- b) Emergency management procedures for fire within the facility*
- c) Internal road systems;*
- d) Water supplies;*
- e) Hazardous materials;*
- f) Annual review and reporting mechanisms; and*
- g) Site familiarisation procedures and response mechanisms*

5 Aim and objective

This Fire Management Plan seeks to minimise the risk of adverse impact of fires on life, property, and the environment. This Plan applies to all staff and visitors accessing Clarence Correctional Centre. Serco requires all persons who access Clarence Correctional Centre for whatever reason to comply with instructions issued by the Emergency Response Team during incidents of fire and other emergencies.

6 Overview

6.1 Operations

On 21 December 2017, development consent was granted by the Minister for Planning for the construction and operation of the Clarence Correctional Centre with 1,700 beds. Key services to be provided include security, education, healthcare, welfare, rehabilitation and reintegration, catering, and facilities management. On 1 July 2020 the Centre was opened.

6.2 Location and site

Clarence Correctional Centre is located 23 kilometers south east of Grafton, 5 kilometers north east of Grafton airport, and 7 kilometers east of the Pacific Highway at 313 Avenue Road, Lavadia. The site comprises Lot 26 DP751376 and Lot 1 DP 1190399 with a total area of 195 hectares.

The Centre provides three correctional facilities – 1000 bed male maximum, 400 bed female, and 300 bed male minimum. Infrastructure comprises 65 buildings including visitor reception, accommodation units, health facilities, education facilities, workshops, storage areas, staff, and visitor facilities. In addition a Waste Water Treatment Plant has been constructed on site.

Figure 1 is an artist's impression of the site



Figure 1: Artists Impression

7 Bushfire hazard assessment

7.1 Climate

The site has a warm temperate maritime climate with a summer / autumn rainfall peak (*refer to Figure 2 below*). Average annual rainfall at Grafton is 995 mm. Rainfall is highly variable, having ranged between 505 mm (1932) and 1859 mm (1950). Average monthly rainfall varies between 41 mm in August and 135 mm in January. Average daily temperatures range between 18.9 and 30.2°C in January and 6.6 and 20.2°C in July.

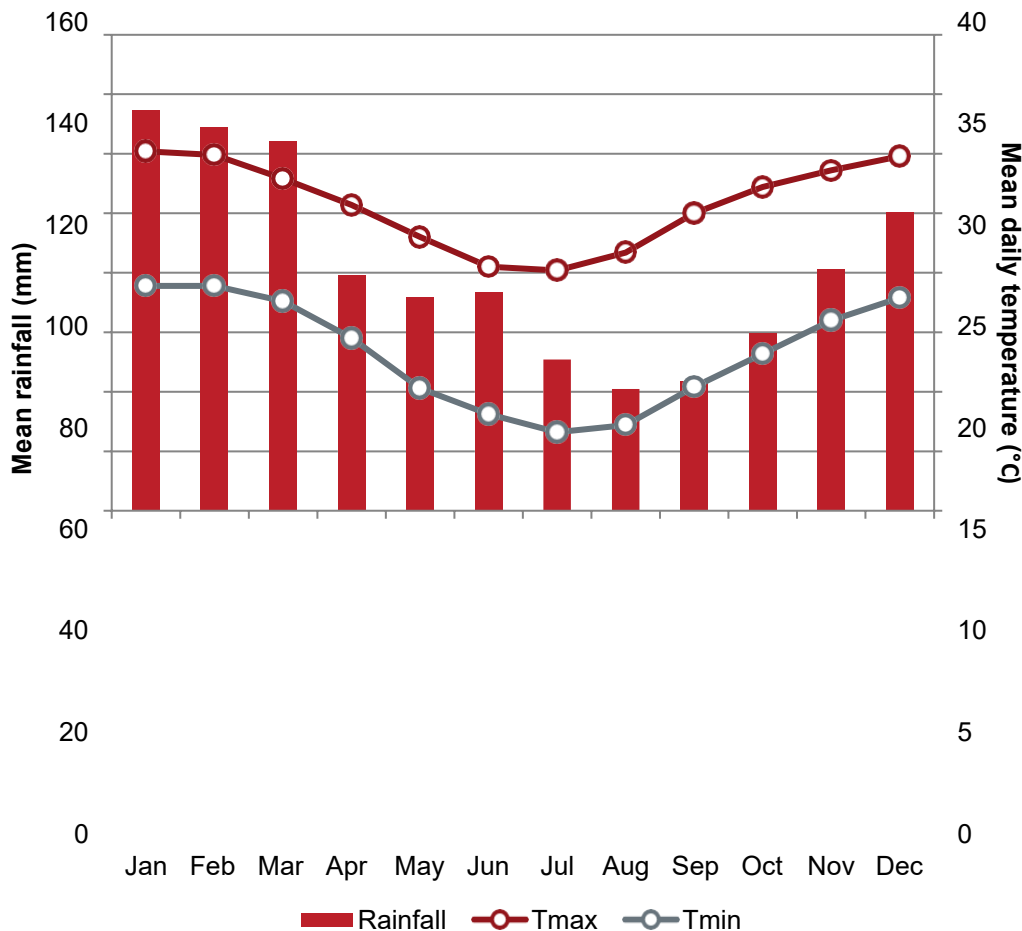


Figure 2: Average monthly rainfall, maximum temperature (Tmax) and minimum temperature (Tmin) for Clarence Correctional Centre.
Data from BoM station 058077 from 1917

The statutory fire danger period typically commences in September and extends through to March. However, it has commenced as early as mid-July and finished as late as mid-April the following year in years with abnormally low rainfall (Clarence Valley Bush Fire Management Committee [BFMC] 2008).

Days with elevated fire weather conditions are most commonly experienced during spring and are characterised by strong, dry, and warm westerly winds.

7.2 Site details

The Clarence Correctional Centre site currently supports patches of remnant native vegetation of various sizes, as well as individual and small clumps of native trees. Pasture grasses dominate the cleared sections of the property and form the main understory component in remnant vegetation areas.

Retained native vegetation on the site and in the immediate surrounds mainly comprises tall open forest of various eucalypt species, sometimes in association with *Allocasuarina littoralis*. The main eucalypt species present are pink bloodwood (*Corymbia intermedia*), grey gum (*Eucalyptus punctata*), spotted gum (*C. maculata*) and grey ironbark (*E. paniculata*).

Native vegetation along the western side of the site is contiguous with larger patches of forest on adjoining properties.

The site is located on a low, north-south trending ridge. Elevations range between about 10 and 35 m AHD. Slopes range up to about 10%, with the steepest areas located in the north of the site and immediately to the east of the facility footprint. The site has multiple aspects but is generally west or east facing either side of the main ridge.

7.3 Bushfire attack level exposure

Centre is assessed to have “low” BAL exposure. The solid wall surrounding the Residential buildings located on bushfire prone land are required to conform to AS 3959-2009, Construction of buildings in bushfire prone areas (Standards Australia, 2009). AS 3959-2009 requires that structures which may be exposed to flame, heat or ember attack incorporate appropriate protective design measures. These measures are proportional to the level of radiant heat exposure, which is defined by the separation between the structure and bushfire prone vegetation, the nature of the vegetation, the slope of the land on which the vegetation is located and the likely severity of fire weather conditions.

No specific design measures are required when the vegetation is located more than 100m from the structure. In such cases, the bushfire attack level (BAL) is rated as low.

With development of the cleared zone, all main habitable buildings that form part of the Clarence Correctional facility provides additional protection from radiant heat and ember attack.

7.4 Total fire bans

A fire ban can be declared during very hot, dry, and windy conditions when fires are likely to spread rapidly and could be difficult to control. During a fire ban, you cannot light, maintain, or use a fire in the open, or carry out any activity in the open that causes, or is likely to cause, a fire.

The authority to declare a fire ban resides with the Rural Fire Service (RFS). It is the responsibility of the Facilities Manager to assess the conditions and check with the RFS if there are any fire bans or other restrictions currently in force in Lavadia.

If hot work must be performed during a time of restriction, Facilities Maintenance will apply for a permit from the Rural Fire Service prior to the commencement of this work.

8 Fire protection measures

8.1 Overview

Clarence Correctional Centre accommodates a maximum of 1700 inmates, plus staff and visitors. The Centre has been designed to reduce the risk of fire to as low as reasonably practicable.

8.2 Asset protection zones

An Asset Protection Zone (APZ) provides • a buffer zone between a bush fire hazard and an asset • an area of reduced bush fire fuel that allows suppression of fire • an area from which backburning may be conducted and • an area which allows emergency services access and provides a relatively safe area for firefighters and occupants to defend their property.

The Clarence Correctional Centre APZ covers an area 100m from the external secure fence, and 20m from the Wastewater Treatment Plant and associated facilities. The APZ is maintained in accordance with the RFS Standards for Asset Protection Zones.

The NSW Rural Fire Service will conduct annual APZ inspections of the site prior to the Bush Fire danger period.

8.3 Project site access

A single access point allows entry from Avenue Road. Avenue Road connects to the Pacific Highway via Eight Mile Lane to the south. The upgraded Pacific Highway forms the southern boundary of this site with Old Six Mile Lane bordering to the north.

8.4 Internal access roads

A firefighting vehicle (Category 1) access road is maintained within the perimeter of the APZ with a minimum carriageway width of four meters with an additional one metre wide strip on each side of the trail (clear of bushes and long grass) and passing bays every 200 metres, a minimum 20 metres long by three metres wide.

8.5 Firefighting water provision

The primary source of water for firefighting is a Grade AAA+ supply from the Wastewater Treatment Plant supported by 2 x 325kL tanks each with 2 x 150mm fire service booster points (4 points in total) and 2 x 150mm large bore suction points.

8.6 Hazardous material storage

A Dangerous Goods and Hazardous Material Register, including quantities and storage locations is at Appendix A. All storage complies with the requirements of AS 1940-2004 The storage and handling of flammable and combustible liquids.

8.7 Building infrastructure

Installed equipment across the Centre includes:

- ASD, Smoke or Thermal Detectors
- Gas Suppression Systems
- ASE Brigade Call Module
- Fire Sprinkler Systems
- Fire Hose Reels / Fire Extinguishers / Fire Blankets / Fire Hydrants
- Fire retardant mattresses and pillows

8.8 Property maintenance

Maintenance of bushfire fuel hazard levels within the Centre's land boundaries (beyond the APZ) is essential in providing a safe environment.

Grounds maintenance is undertaken in accordance with the Horticulture and Grounds Services Plan.

The weekly schedule for grounds maintenance outside the secure perimeter includes slashing of open spaces, zero turn mowing of grassed areas, and line trimming around the fence line. In addition, rubbish will be collected daily and disposed of in appropriate receptacles.

9 Emergency planning

As a secure correctional facility, emergency evacuation in case of fire would be undertaken only as a last resort. As a result, emergency responses are instead focused on supporting occupants in place during a fire event, effective fire responses by emergency service agencies, and the provision of fire water supplies. These are supported by planned and programmed maintenance of the APZ and internal access tracks.

Any emergency will be managed in accordance with the Local Operating Procedure 'Emergency Response Model'. This Procedure sets out the local emergency control structure, lines of communication, and also the procedure for assisting emergency services personnel to recognise the role of correctional centre personnel.

In the case of a fire inside the Correctional Centre, staff will initially respond to the fire by raising the alarm, evacuating people to a safe area, and if safe to do so, extinguishing or containing the fire with available equipment.

Serco will work closely with local emergency service organisations to provide site familiarisation, access protocol procedures, and other information as required to ensure emergency service personnel are able to support the Centre during an emergency.

9.1 Fire Safety Manager

The Deputy General Manager Security and Operations is assigned the role of Fire Safety Manager responsible for oversight and reporting on all aspects of fire safety and providing regular fire awareness training to all custodial and non-custodial staff.

The Fire Safety Manager is responsible for regularly consulting and communicating with:

- The General Manager and Senior Management Team
- Local fire authorities
- The Corrective Services NSW Fire Safety & Environmental Risk Management Group

The Fire Safety Manager is responsible for completing a Needs Analysis to determine the requirement for fire exercises, and with the approval of the General Manager, schedule and run these fire exercises.

9.2 Fire risk assessment

The Health, Safety & Environment Manager will complete a fire risk assessment when Clarence Correctional Centre becomes operational. The fire risk assessment will include:

Fire protection	Including firefighting facilities, fire alarm system, extinguishers, fire blankets, fire hoses, sprinkler systems and extract systems.
Fire hazards	Including sources of ignition, fuel, and oxygen.
People at risk	Including numbers of employees, visitors, and contractors. Considerations made for mobility impairment, vision impairment, hearing impairment, lone workers, elderly persons, language, substance abuse, cognitive disability, and young persons.
Means of escape	Including measurements and travel distances.
Risk ratings	A matrix calculating risk levels.
Significant findings	Including any problems identified and recommendations for fixes

9.3 Review of fire risk assessment

The fire risk assessment will be reviewed:

- ☐ Following an outbreak of fire
- ☐ Following the failure of existing fire precautions e.g. fire detection and alarm systems
- ☐ Following substantial changes to furniture or fittings
- ☐ Following alterations to the building, including internal layout
- ☐ Following a change of use of the building
- ☐ At least annually

10 Training and awareness

10.1 Emergency response staff

All custodial staff undertake the Fire & Emergency Response Module as part of their induction training. This module provides first responder training and includes hands-on training on the installed fire-fighting equipment.

Fire Management is annually provided to all staff on the LMS “ASPAC J&I Fire Awareness”

In addition, Emergency Response Team members receive enhanced training in incident management including management of Inmate movements during critical incidents.

All custodial staff assigned to the Gate are provided instruction on facilitating the entry of emergency service personnel and equipment.

10.2 First Aid Officers

All custodial staff are trained in first aid.

In addition, the Correctional Centre contains health centers with nursing staff on roster 24 x 7 x 365.

10.3 Provision of information to Inmates

The General Manager will ensure Inmates are provided with information on the local arrangements for dealing with emergencies including fire. This will be done during the Inmate induction process. Where Inmates are employed to work, they will be provided with comprehensive safety instruction relevant to the work environment. All information, instruction and training provided to Inmates is recorded.

11 Fire safety measures

11.1 Reducing the risk of fire

Custodial Supervisors will ensure the risk of fire is reduced by:

- ☐ Minimising the amount of property stored in inmate cells and accommodation storerooms. Excess inmate property is to be confiscated and disposed on in accordance with clause 47 *Crimes (Administration of Sentences) Regulation 2014*.
- ☐ Minimal quantities of combustible or flammable material is stored in or near accommodation areas, with bulk storage facilities managed through Facilities Management.
- ☐ Ensure fire safety equipment is not interfered with or misused. All repairs or replacements are registered in FSI for rectification. Preventative maintenance on fire safety equipment will be performed to ensure compliance to AS 1851.
- ☐ Keep all areas of the Centre clean and tidy and ensure clear access to fire safety equipment at all times.
- ☐ Inspect daily individual workspaces to identify fire safety (and other) hazards and take action to remedy the risks.

11.2 Pre-incident Plan Information Folder

To support emergency services to effectively respond to a fire or other emergency situation each Gatehouse, and the Incident Control Centre have a copy of site plans, and a Pre- incident Plan Information folder identifying the location of:

- fire booster locations
- fuel supplies
- stormwater infrastructure and on-site water supplies
- MV distribution reticulation and distribution boards
- fire hydrants
- by-pass valves and stop valves
- storerooms and other areas where hazardous and flammable materials are stored

11.3 Fire Emergency Plans

In accordance with Regulation 43 of the Work Health and Safety (WHS) Regulations a fire emergency plans are available in each building.

12 Post incident response

12.1 Monitoring Performance

The Health, Safety & Environment Manager, via the established Health & Safety Committee, is responsible for ensuring the quality of fire safety inspections and for identifying any remedial action which may need to be carried out following an inspection.

Fire safety should be a standing item on the agenda of the Health & Safety Committee.

12.2 Post Incident Review

The General Manager will lead the Post Incident Review within 24-hours of stand-down of the incident response. If local emergency organizations participated in the incident response, they will be invited to participate in the Post Incident Review to provide subject matter expertise.

The following questions will form the basis of the Review:

- Was the Local Operating Procedure followed and why, or why not?
- Were there gaps in the tactics and did they affect the progression of the response?
- Were there enough resources and were they the correct ones for the tasks?
- Should we have done anything differently?
- What have we learned and what needs to change?

12.3 Staff Counselling Service

All staff involved in an incident are to be referred to the Employee Assistance Program (EAP) T: 1300 687 327 within 24 hours of stand-down of the incident.

13 Consultation

This FMP has been reviewed in consultation with:

Supt. Stuart Watts

District Manager | Clarence Valley District NSW RURAL FIRE SERVICE

Fire Control Centre | 15 Coldstream Street Ulmarra 2462

14 References

- Corrective Services NSW Custodial Operations Policy & Procedures 15.2 *Fire safety and maintenance*
- Clarence Valley Bush Fire Management Committee [CVBFMC] 2008. *Bush fire risk management plan*.
- NSW Rural Fire Service. *Standards for Asset Protection Zones*
- Standards Australia 2005. Fire hydrant installations. AS2419.1-2005
- Standards Australia 2010. Planning for emergencies in facilities. AS 3745-2010.
- Clarence Correctional Centre Emergency Management Plan

Appendix A

Clarence Correctional Centre

Dangerous Goods & Hazardous Materials Register

Clarence Correctional Centre - Dangerous Goods and Hazardous Materials Register

As at November 2021

Category	Material	Schedule 11	Type of Agent	Classification	Volume	Placard Quantity	Placard Required?	Manifest Quantity	Building No
Medical	Nitrous Oxide	4	Oxidising	Category 1	540	1,000	No	10,000	12, 29, 46
Medical	Ceutan Alcohol Foam Hand rub	7	Flammable	Category 2	100	250	No	2,500	Various
Medical	Non-Alcoholic Handwash		TBA		70				Various
Medical	Medical Oxygen	5	Gases Under Pressure	Other	700	1,000	No	10,000	12, 29, 46
Medical	Breathing Air	5	Gases Under Pressure	Other	500	1,000	No	10,000	12, 29, 46
Utilities	LPG	1	Flammable	Category 1	10,440	200	Yes	5,000	53
Utilities	Diesel	10	Flammable	Category 4	36,000	10,000	Yes	100,000	54
Utilities	Diesel		Carcinogenicity	Category 2	36,000	10,000	Yes	100,000	54
Utilities	Diesel		Aspiration Hazard	Category 1	36,000	10,000	Yes	100,000	54
Cleaning	Fincol	39	Corrosive	Category 1C	815	1,000	No	10,000	All Areas
Cleaning	Morning Fresh		Not classified	N/A	35	N/A	No	N/A	All Areas
Cleaning	Carpet Shampoo		TBA						8, 42
FM	WD-40 (non-aerosol)	10	Flammable Liquid	Category 4	20	10,000	No	100,000	10
FM	Contact Cleaner	4	Flammable Aerosol	Category 1	4	5,000	No	10,000	10
FM	Cutting Paste		Not classified	N/A		N/A	No	N/A	10
FM	Silicone Sealant		Not classified	N/A		N/A	No	N/A	10
FM	Dulux Paint (Wash & Wear)		Not classified	N/A		N/A	No	N/A	10
FM	Solvent Degreaser	8	Flammable	Category 3	40	1,000	No	10,000	10
FM	Oil	N/A	Not classified	N/A	80	N/A	No	N/A	10
FM	AWS46 (Oil)	N/A	Not classified	N/A	5	N/A	No	N/A	10
Industries	Laundry Liquid		TBA						9
Industries	Acetylene	1	Flammable Gas	Category 1	405	200	Yes	5,000	08, 42
Industries	Oxygen, Compressed	5	Gases Under Pressure	N/A	405	1,000	No	10,000	08, 42

Category	Material	Schedule 11	Type of Agent	Classification	Volume	Placard Quantity	Placard Required?	Manifest Quantity	Building No
Industries	Argon	5	Gases Under Pressure	N/A	405	1,000	No	10,000	08, 42
Grounds	Line Marking Paint		Not classified	N/A					9
Grounds	Broadleaf Herbicide		Not classified	N/A					9
WWTP	Sodium Hypochlorite	40	Corrosive to metals	Category 1	3,200	1,000	Yes	10,000	57
WWTP	Sodium Hypochlorite	38	Skin Corrosion	Category 1B	3,200	250	Yes	2,500	57
WWTP	Sodium Hydroxide (Caustic)	40	Corrosive to metals	Category 1	3,200	1,000	Yes	10,000	57
WWTP	Sodium Hydroxide (Caustic)	37	Skin Corrosion	Category 1A	3,200	50	Yes	500	57
WWTP	Aluminium Sulphate (Alum)		Not Classified	N/A	3,200	N/A	No	N/A	57
WWTP	Citric Acid		Not Classified	N/A	500	N/A	No	N/A	57
WWTP	Polymer		Not Classified	N/A	200	N/A	No	N/A	57
Kitchen	Cooking Oil - Olive Oil		Not classified	N/A	50	N/A	No	N/A	10, 28
Kitchen	Cooking Oil Vegetable (Canola)		Not classified	N/A	400	N/A	No	N/A	10, 28
Kitchen	Combi Oven Cleaner	38	Skin Corrosive	Category 1B		250		2,500	10, 28