updated - 25 June 2025



Living School Lismore - Brown & Jolly Campus 200 students and 12 staff 65-69 Woodlark St, Lismore

# Emergency Management Plan & Business Continuity Plan

Flooding is a significant natural hazard in the Lismore region, and ensuring the safety of our students and staff is our absolute highest priority. This Flood Evacuation Plan has been developed to provide clear, actionable procedures in response to potential flood events impacting our school.

This plan outlines the specific steps we will take before, during, and after a flood, based on real-time information from the Bureau of Meteorology (BoM) and the Wilsons River at Lismore Gauge (203904). It covers various scenarios, including events occurring both during and outside of school operational hours, ensuring we are prepared to act decisively to protect our entire school community.

We encourage all staff, students, and parents/guardians to familiarise themselves with this plan. Your understanding and cooperation are vital in helping us ensure a safe and efficient response should a flood event occur.



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# **Section 1: Executive Summary**

Living School's flood evacuation plan uses a forecast-based, timeline-driven model to ensure we act early—before roads close or conditions become unsafe.

Instead of waiting for actual floodwaters to rise, we respond to forecasted river heights. This approach gives us time to move calmly, communicate clearly, and evacuate students and staff safely.

The plan is built around:

- Conservative triggers tied to Bureau of Meteorology (BoM) forecasts
- Time buffers from NSW SES evacuation guidelines
- A clear sequence of actions based on rising flood predictions
- Trigger 1 Lismore Gauge at 4.2m and rising watch and act
- Trigger 2 Lismore BoM forecast for moderate riverine flooding within 24 hours buses and drivers on standby at SCU [if during school hours]
- Trigger 3 Lismore BoM forecast for major riverine flooding within 24 hours OR moderate riverine flooding with flash flood within 24 hours immediate Evacuation
- Evacuation time of 3 hours 20 minutes to move staff and students from Brown & Jolly to our SCU campus [first bus leaving Brown & Jolly after 1 hour 20 minutes]

It's a proactive strategy designed for Lismore's fast-changing flood risks—because in a flood, timing is everything.

All references to flood levels from the Lismore gauge are to be based on the Wilsons River at Lismore Gauge (203904). This is the primary flood gauge for Lismore and is located on the Lismore Rowing Club building, at the western end of Magellan Street, Lismore.

The Lismore Gauge is a short walk from the Brown & Jolly campus and will be sighted by a member of staff, if safe to do so.

The plan is to be reviewed annually or after any activating flood event, and is subject to drill-based rehearsal, kit restocking, and contact verification each calendar year.



#### Section 2: Site Risk Assessment

Lismore's long history of flooding underscores the importance of proactive planning and community readiness. Since records began in the mid-1800s, the region has experienced more than 150 flood events—averaging nearly one minor, moderate, or major flood per year. These events range from low-level inundation to severe, disruptive floods. While major floods are less frequent, their impacts can be significant, and minor and moderate floods remain a regular part of the region's landscape. This evacuation plan draws on over a century of local data to ensure that the Living School students, staff and stakeholders are well-prepared for the next potential flood event—no matter its scale.

The Brown & Jolly campus, located in Lismore's CBD on Carrington Lane and Woodlark Street, sits within a designated High Flood Risk Precinct (H5) and is mapped as part of a Low Flood Island under the Lismore Floodplain Risk Management Plan. This classification recognises the significant risk to site accessibility and inundation potential during both localised and regional flood events.

#### Flood Types Affecting the Brown & Jolly Site

#### Flash Flooding

The site is vulnerable to short-duration, high-intensity rainfall events that overwhelm local drainage infrastructure, resulting in rapid surface runoff and surcharges from underground stormwater systems. These events can occur with minimal lead time and may isolate the site before any riverine floodwater arrives.

#### Riverine Flooding

Wilsons River and Leycester Creek are the dominant riverine systems influencing flood behaviour in Lismore. Flooding from these sources tends to build over hours, allowing for staged response, but can result in deep, prolonged inundation. Due to the site's low elevation, even moderate floods can cut off access routes several hours before the site itself floods.

**Table 1. Historical Records** 

| Year | Peak Height (Lismore<br>Rowing Club gauge) | Local Impact on<br>Brown & Jolly  |
|------|--|---|
| 1974 | 12.15 m AHD                                | Ground floor inundated  |
| 2017 | 11.59 m AHD                                | Lower ground sections affected  |
| 2022 | 14.4 m AHD                                 | ~20 cm inundation of rear second floor; front second-floor remained above waterline |

These historical records illustrate the increasing variability and severity of flood events, including the 2022 disaster, which surpassed predictive flood planning levels.



#### **Site Elevation Summary**

Table 2. Brown & Jolly Floor Height AEP Reference

| Building Area                                   | Approx. Elevation<br>(AHD - Australian<br>Height Datum) | Lismore<br>(Rowing Club)<br>Gauge<br>(mAHD)203904 -<br>58176 |
|---|---|--|
| Ground Floor (rear, Carrington Lane)            | 10.50 m   | 10% AEP (10.97m)   |
| Ground Floor (central)                          | 10.80 m   | 10% AEP (10.97m)   |
| Ground Floor (elevated access zone)             | 11.05 m   | 5% AEP (11.45m)  |
| Upper Floor (typical)                           | 14.20 m   | PMF (16.55m)   |
| Upper Floor (front section)                     | 15.12 m   | PMF (16.55m)   |
| New Raised Construction (underway)              | 14.53 m   | PMF (16.55m)   |
| Flood Planning Level (incl. freeboard)          | 13.58 m   | PMF (16.55m)   |
| Probable Maximum Flood (PMF) Estimate (Lismore) | ~16.55 m  |  |

#### AEP - Annual Exceedance Probability

All educational functions occur on upper floors at or above 14.2 m AHD, exceeding the Flood Planning Level (FPL) and including 500 mm freeboard. Ground floor spaces are purpose-built for flood-resilient use (storage, wet access) with minimal permanent infrastructure.

#### **Flood Hazard Summary**

- 10% AEP (1-in-10-year flood): Site access routes may be cut off despite the Brown & Jolly floor remaining dry.
- 5% AEP (1-in-20 year flood): Water levels inundate ground floor level.
- 1% AEP (1-in-100-year flood): Water levels could exceed 2m on-site; evacuation must be complete prior to levee overtopping ( $\sim$ 10.2m AHD).
- PMF (Probable Maximum Flood): Water depth up to  $\sim$ 6m above ground floor, and  $\sim$ 1m above upper floor area, exceeding all floor levels.



#### Flood Risk Matrix

Determination of flood risk is recommended to be undertaken through consideration of the likelihood of the flood event, and the severity of its consequence as outlined in the Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia (AIDR, 2017). The flood risk classifications are a result of the combination of flood hazard and flood frequency, as shown in Figure 1.

Figure 1. Flood Risk Matrix (source Lismore Flood Risk Management Plan)

|                                  | Flood Hazard (AIDR) Brown & Jolly |        |        |        |         |         |
|----------------------------------|-----------------------------------|--------|--------|--------|---------|---------|
| Flood Likelihood                 | H1                                | H2     | Н3     | H4     | H5      | Н6      |
| 10% AEP                          | Low                               | Medium | Medium | High   | Extreme | Extreme |
| 5% AEP, 1% AEP                   | Low                               | Low    | Medium | High   | High    | Extreme |
| 0.2% AEP                         | Low                               | Low    | Medium | Medium | High    | High    |
| 1:1,000 AEP, 1:2,000 AEP         | Low                               | Low    | Low    | Low    | Medium  | High    |
| 1:10,000 AEP, 1:100,000 AEP, PMF | Low                               | Low    | Low    | Low    | Low     | Medium  |

According to the Lismore Flood Risk Management Plan, Brown & Jolly is situated in the H5 Flood Hazard zone.

- The "Extreme" risk precinct classification applies to the deepest areas within the CBD basin, along with the creek areas of Leycester Creek, Wilsons River and Hollingworth Creek, where the highest flow velocities exist.
- "High" risk precincts apply to the majority of the remaining CBD basin area, South Lismore, the airport and through to Gundurimba.
- "Medium" and "Low" risk precincts include the remaining areas not mentioned above, within the PMF extent.
- An additional "South Lismore Development Restricted Area" precinct has been applied to South Lismore due to the limitations associated with evacuation from this area and potential for property damage.
- An additional "CBD Development Exemption Area" precinct has been applied to the CBD and surrounding commercial areas that are noted as high risk, due to the limited protection the levee provides and the extended time and potential for evacuation to the east via rising roads.



#### Section 3: Flood Timeline Assessment

Evacuation success for schools within the Lismore CBD floodplain is critically dependent on the ability to act before safe egress routes are compromised. Given the size of the student population, logistical constraints, and the compound effects of traffic, weather, and communication disruptions, a timeline-based approach is essential for safe and timely action at the Brown & Jolly site.

The Lismore City Local Flood Plan (2023) states:

"From the time 5.0 m AHD is reached at the Rowing Club gauge, a minimum of 5 hours may be available before it reaches 10.0 m AHD. In past events, this rise has occurred over 5–17 hours."

Levee overtopping occurs between 10.2 m and 10.6 m AHD. Post-overtop, surrounding streets become hazardous and impassable. Brown & Jolly's access routes are impacted before inundation occurs at the building itself.

#### Time to evacuate all students from building - 3 Hours 20 Minutes

In the event of an emergency, that requires the evacuation of the Brown & Jolly campus, the Living School will utilise its private fleet of buses and dedicated bus drivers.

The 9 buses are housed at SCU when not in use. On average the drive from SCU to the Brown & Jolly campus takes 8 minutes. We have allowed for the SES Traffic Safety Factor (TSF) of 1 hour to be added to any journey required to move all members of staff and students to our SCU facility.

The bus fleet will be moved to the Brown & Jolly campus when triggered by a 4.2m gauge reading with a BoM forecast of major flooding within the next 24 hours and/or a Flash Flood warning within the next 24 hours, or notification from the SES.

The buses will journey to the Brown & Jolly campus and are expected to take 1 hour and 10 minutes with the 1 hour TSF included. Students will be lined up in the hall in numbered lines according to the capacity of the next bus to arrive. Students will be assembled in the hall, organised into numbered lines based on the capacity of the next arriving bus. As each bus arrives at the Carrington Street parking zone, a designated teacher will first assess whether it is safe for students to proceed.

Once cleared, a second teacher will escort the next group of students to the bus. Each student will tap on using their bus pass, which records their boarding and provides an accurate headcount. Once full the bus will head off to SCU and the next bus will arrive.

During the evacuation we estimate a 10 minute loading time for each bus and an additional 1 hour and 10 minute journey to SCU (using the SES's TSF of adding an additional hour on top of every hour of an evacuation's journey time). Should the buses require a return journey we have allowed for a 10min turnaround time at SCU and an additional 1 hour and 10 minutes to reach Brown & Jolly.



An estimated **3 hours 20 minutes** is required to load and transport the staff and students from Brown & Jolly to our SCU campus (based on 6 buses loading at 10 minute intervals with a 1 hour and 10 minute drive time).



# **Section 4: AWS-Aligned Trigger Table**

In accordance with the Australian Warning System (AWS) adopted by the NSW State Emergency Service (SES), this Emergency Management Plan applies a structured trigger-response matrix aligned with forecasted flood heights. These triggers are designed to ensure sufficient lead time for safe evacuation, equipment protection, and community communication—particularly given the complexity of managing children and staff in a CBD-located flood zone.

All triggers refer to forecasted flood heights at the Lismore Rowing Club gauge, not observed water levels. This proactive stance allows Brown & Jolly staff and leadership to act early and conservatively, ensuring safety in the face of uncertain forecasts and potentially rapid riverine or flash flood behaviour.

**Table 3. Flood Response Trigger Matrix** 

| Within 24hrs                   | AWS Warning<br>Category -<br>FORECASTS | Brown & Jolly<br>Response Action  |
|--------------------------------|--|---|
| 4.2m level at<br>Lismore Gauge | Advice                                 | <ul><li>Initiate monitoring</li><li>Alert staff- Confirm kit and resource readiness</li><li>Inform community via email/SMS</li></ul>  |
| Moderate<br>Flood forecast     | Prepare to evacuate                    | <ul> <li>Begin lifting key equipment</li> <li>Prepare buses and place drivers on standby at SCU</li> <li>Z-Block</li> <li>Confirm SCU access- Review evacuation roster</li> </ul> |
| Major Flood<br>forecast        | Initiate Evacuation                    | <ul><li>Initiate staged evacuation of students</li><li>Begin school bus transport to SCU</li><li>Activate communications tree</li></ul>   |
| Flash Flood<br>forecast        | Initiate Evacuation                    | <ul><li>Initiate staged evacuation of students</li><li>Begin school bus transport to SCU</li><li>Activate communications tree</li></ul>   |
| 10.2-10.6m                     | Brown & Jolly closed                   | <ul> <li>Site closure completed</li> <li>All lifts raised and secured</li> <li>Site secured</li> <li>Carpark clear</li> <li>No staff or students present</li> </ul>               |



#### **Additional Clarifications:**

- Trigger language is always based on forecasted levels, unless SES directly advises otherwise.
- AWS-based warnings are communicated via SMS, BoM forecasts, Lismore Disaster Dashboard, and SES alerts.
- Evacuation is to be completed prior to a visual level of 10.2m, in line with SES expectations for levee overtopping.

This section ensures that Brown & Jolly maintains consistency with regional flood communication standards while implementing additional risk buffers tailored to the unique operational challenges of running a school.

#### **Scenario 1: Flood Event During School Operational Hours**

#### **Monitoring & Alerting:**

- Continuous monitoring of Bureau of Meteorology (BoM) flood warnings for the Wilsons River at Lismore (203904), Lismore City Council alerts, and NSW SES advice [and monitoring ABC Radio: 900 AM, 2ZZZ: 101 FM and North Coast Radio 92.9 Fm In case of internet/mobile outage].
- Internal communication system for immediate staff alerts (PA system, internal messaging app channel, walkie-talkies).
- External communication system for parent/guardian alerts (email, SMS, school app, website).
- If internet/mobile signal drops out, if practical and safe to do so, visual confirmation of the water height at the Wilsons River at Lismore Gauge (203904) (by appointed staff member) be considered.

#### Trigger 1: Wilsons River at Lismore Gauge (203904) reaches 4.2m (Minor Flood Level)

#### • Action:

- Alert: School leadership team and key staff are alerted to the rising river levels.
   Students notified of flood plan activation.
- Internal Preparation (Ground Floor): Staff in ground floor areas begin preliminary actions for securing/elevating non-essential items, as per the school's internal flood preparedness plan.
- Communication (Parents): A general notification is sent to all parents/guardians informing them of the rising river, the school's monitoring, and the potential for an early evacuation. Advise them to monitor school communications closely.
- Emergency Kit Check: Verify readiness and accessibility of all emergency kits, first aid supplies, and essential records.
- Staff Briefing: Brief all staff on the escalating situation and review their roles in an evacuation.



# Trigger 2: Lismore BoM forecast for moderate riverine flooding within 24 hours – buses and drivers on standby at SCU [if during school hours]

#### Action:

- Buses Mobilised: School buses are prepared and drivers are held at SCU for potential evacuation.
- Communication (Parents): A notification is sent to all parents/guardians confirming evacuation preparation.
- Emergency Services Notification: NSW SES and other relevant emergency services are notified of the school's evacuation preparation status.
- Staff Briefing: Brief all staff on the escalating situation and review their roles in an evacuation.

# Trigger 3: Lismore BoM forecast for major riverine flooding within 24 hours OR moderate riverine flooding with flash flood within 24 hours

#### • Action:

- Immediate Evacuation Order issued: School delegated authority issues an immediate and decisive order for full school evacuation.
- Buses Mobilised: Required school buses head to Brown & Jolly at 10 minute intervals [to avoid congestion at Brown & Jolly pickup point].
- Evacuation Activation:
  - All students and staff are immediately directed to the pre-designated safe assembly point at the Brown & Jolly campus.
  - The evacuation plan for the Brown & Jolly campus is strictly followed, including bus loading and departure procedures.
  - Roll calls are conducted at each stage of the evacuation (as well as bus-pass tap on for all students) to ensure all individuals are accounted for.
- Communication (Parents): An urgent notification is sent to all parents/guardians confirming immediate evacuation is underway, providing details of student collection points (those not being bussed home will be collected from SCU Z-Block) and procedures, and reiterating the need for safety.
- Emergency Services Notification: NSW SES and other relevant emergency services (including Welfare Services and AISNSW) are notified of the school's evacuation status.
- Building Lock-down (Post-Evacuation): Once all clear, secure the school premises to the extent possible (e.g., turn off power to lower levels if safe, secure doors/windows, raise elevators, secure access to prevent building re-entry).



#### Scenario 2: Flood Event Outside School Operational Hours

#### **Monitoring & Alerting:**

- Designated staff members (Principal, Deputy Principal, Facilities Manager, etc.) are responsible for continuous monitoring of BoM flood warnings (203904), Lismore City Council alerts, and NSW SES advice during non-operational hours.
- Clear communication protocols for notifying staff and parents outside of hours (SMS, email, school website, school app).

# Trigger 1: Wilsons River at Lismore Gauge (203904) reaches 4.2m AND BoM forecasts a Major Flood OR Flash Flood for Lismore within 24 hours.

#### • Action:

- School Closure Notification (Immediate Threat): An immediate and clear notification is sent to all parents/guardians and staff informing them that the Brown & Jolly campus will be closed until further notice.
- Reason for Closure: The communication will clearly state that this closure is due to the projected major flood or flash flood threat and the safety concerns regarding access to and from the school.
- Updates: Advise the community to monitor school communication channels for further updates regarding re-opening or alternative arrangements.
- Internal Communication: Key staff are notified to enact their out-of-hours flood preparation duties (e.g., securing ground-floor assets if safe to access).

Note: All actions are based on forecasted levels, not observed. This ensures conservative lead times and full compliance with NSW SES's preferred risk-avoidance model.



# **Section 5: Evacuation and Assembly**

The safe and timely evacuation of students, staff, and essential resources is central to this Emergency Management Plan. All evacuation protocols are structured around a forecast-based decision framework, ensuring that movement begins well before access routes are compromised or the CBD levee system overtops.

Evacuation procedures are designed to accommodate both rapid-onset flash flooding and progressive riverine flooding, and are tested annually via drills. Living School's Brown & Jolly site evacuation strategy is based on pre-planned staging to Southern Cross University (SCU), using school (owned and controlled) transport and public alerts to guide parent involvement and staff logistics. All students are marshalled in the auditorium area. Buses are readily available and in emergency situations are allowed to enter for evacuation of students.

#### **Evacuation Route**

Based on the Lismore City Council Flood Evacuation Zone and Primary Evacuation Routes, our buses will follow Carrington St South to Conway St then turn East until Ballina Rd where they will head East out of the flood zone to the SCU campus.

- Departure Path: Carrington Lane  $\rightarrow$  Conway Street  $\rightarrow$  Ballina Road (Bruxner Hwy)
- Route Type: Low Flood Island egress, time-sensitive based on road cut-off history
- Lismore City Local Flood Emergency Sub-Plan (LCLFP) Compliance: Route aligns with SES-mapped last roads out of Lismore for the CBD sector
- GIS-based evacuation map: Provided in Appendix A

Note: This route becomes unsafe once flood levels reach 10.2 m AHD. Evacuation must be complete before this point.

#### **Transport Logistics**

Our current fleet allows us to move a total of 214 students and staff across 6 buses (with 3 additional buses in reserve as backup).

• School Buses: The school currently has the following fleet

Bus 1 (Mercedes)- 54 seats

Bus 2 (Isuzu) - 44 seats

Bus 3 (Hino) - 34 seats

Bus 4 (Hino) - 34 seats

Bus 5 (Rosa) - 24 seats



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Bus 6 (Rosa) - 24 seats
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Bus 7 (Toyota) - 21 seats

Bus 8 (Mercedes) - 11 seats

Bus 9 (Nissan) - 21 seats

Our fleet will continue to be updated to ensure reliability and capacity to cope with the student and staff growth.

- Parent Collection from Brown & Jolly actively discouraged: Preemptively encouraged in minor/moderate flood scenarios to collect from SCU where access remains viable
- Trailers/Trucks: Used to relocate white goods, digital infrastructure, teaching supplies
- Carpark Safety: Monitored by high-vis staff using wands; no vehicle reversing without spotters

#### Primary Assembly Location where students are evacuated to SCU Campus:

- Southern Cross University (SCU), Lismore Campus
  - o Z Block Library Lounge: Primary student reception and supervision zone

SCU has been pre-notified and confirmed as the official SES Evacuation Centre during disaster events

### **Assembly Protocol at SCU**

- Students are directed to indoor holding areas under staff supervision, by cohort:
  - o Primary: Z Block Library zone
  - Middle/Secondary: Z Block Classrooms
- Teachers perform name checks and record all arrivals at SCU
- Students are only released to verified guardians or remain under staff care until SES clearance



#### **If Evacuation Becomes Unsafe**

In the unlikely event that floodwaters rise too quickly to allow safe departure:

- Upper Floor Last Resort Refuge Areas (14.2–15.12 m AHD) are accessed
- Emergency Flood Kits (see Section 9) are deployed from dorma lofts
- All lower-level access points are closed, signed, and secured to prevent re-entry
- SES is notified of refuge status with updated occupant names and estimated supplies

This evacuation and assembly plan reflects the priority of early, structured evacuation with clear thresholds, regular communication, and built-in last resort refuge procedures.

• Please see Appendix A for maps and routes



#### **Section 6: Roles and Contacts**

Effective flood response and evacuation relies on a clear chain of command, proactive delegation, and consistent communication. The following table outlines the key roles and designated personnel responsible for planning, response, and recovery functions at the Brown & Jolly site.

All listed contacts are expected to participate in annual refresher updates, emergency drills, and post-event reviews, with updates to this register made immediately after staff changes or role reassignments.

**Table 4. Brown & Jolly Flood Response Team** 

| Role                      | Name      | Responsibility   | Contact           |
|---------------------------|-----------|--|-------------------|
| Flood Warden John Stewart |           | Final authority on evacuation; SES liaison; coordinates communication; triggers all response actions | 0432 213 716      |
| Project Manager           | Chris B   | Equipment lifting, hoists, trailers; supports building preparations and resource relocation          | [To be confirmed] |
| Maintenance<br>Manager    | Jordi G   | Power isolation, lift positioning, access checks, pump-out support                                   | [To be confirmed] |
| Bus Manager               | Mike B    | Fleet coordination, route validation, fuel checks, trailer hire                                      | [To be confirmed] |
| Jabay Manager             | Anna S    | Closure of food prep areas; relocates perishables and appliances to SCU                              | [To be confirmed] |
| Reception<br>Coordinator  | Breanna R | Oversees first aid kits, PA system dismantling, signage placement, and internal alerts               | 5632 1218         |
| Conductor's PA            | Marley B  | Stocktake documentation, photography of assets, coordinates device and material relocation           | [To be confirmed] |



#### **Additional Roles and Support**

- Learning Neighbourhood Directors: Oversee classroom-level readiness and support teachers in executing lifting or packing plans
- Teachers: Responsible for their learning areas; pack soft furnishings, label student work, and supervise students during evacuation
- Bus Drivers and Admin Staff: Responsible for safety of vehicle loading areas; supervise traffic flow during evacuations
- SCU Liaison (when required): Identified member of senior staff to coordinate handover and communication with SCU security or SES representatives at assembly point

#### **Update and Review Schedule**

- Reviewed annually in Term 4 or immediately following any flood or activation of this EMP
- Staff changes must be recorded within 7 days and published on internal dashboard
- All new personnel are to receive training on flood protocol and their duties
- All personnel are to receive refresher training on flood protocol each year.

This structured team ensures clear operational boundaries, distributed responsibility, and rapid activation under the direction of the Warden.



#### Section 7: Structural Readiness

The Brown & Jolly site has been developed and maintained with specific design considerations to mitigate flood impact and maximise safety. Its mixed-floor elevation profile allows for clear distinction between critical educational areas (upper floor only) and flood-resilient, non-essential areas (ground floor). This section outlines key structural and operational features that support preparedness, refuge, and rapid recovery.

**Table 5. Building Use and Flood Level Tolerance** 

| Zone                                  | Elevation<br>(AHD) | Function                              | Flood Strategy                                    |
|---------------------------------------|--------------------|---------------------------------------|---|
| Ground Floor (rear,<br>Carrington Ln) | 10.5 m             | Access/storage only                   | Non-essential, easily restorable                  |
| Ground Floor (elevated zones)         | 10.8-11.05 m       | Storage/utility                       | Flood-resilient materials, early clearance zone   |
| Upper Floor (teaching areas)          | 14.2 m             | All educational delivery              | Well above 1% AEP and FPL + freeboard             |
| Front Upper Floor<br>(raised zone)    | 15.12 m            | Secondary equipment staging           | PMF-resilient secondary last resort flood refuge  |
| Under-construction raised area        | 14.53 m            | Staff room, archive, digital learning | Compliant with 100-year FPL<br>+ 500 mm freeboard |

#### **Last Resort Floor Refuge and Emergency Zone Capacity**

The upper floor (14.2–15.12 m AHD) can safely accommodate:

- Up to 200 students and 15 staff
- Emergency flood kits (see Section 9)
- Lifts pre-raised and powered down
- Loft-mounted kits accessible via dorma-style ladders



#### Flood-Resilient Design Features

- Fit-out & Furnishings:
  - Ground floor uses water-tolerant surfaces (e.g. concrete, stainless steel, laminated storage)
  - No irreplaceable assets or digital devices are permanently stored below 12.0 m
     AHD
- Power & Electricals:
  - Power points on lower levels taped or isolated during activation
  - Main switchboard shutoff protocol executed at 9.7 m AHD
- Lifts & Access:
  - Two lifts raised and locked at uppermost floors pre-flood
  - o Keys secured by Maintenance and Warden
  - Signage displayed to restrict use during warning period

#### **Asset Management for Evacuation and Recovery**

- Furniture and materials stored on rolling pallets or strapped shelving for rapid relocation
- Whitegoods and electronics (e.g. ovens, fridges, PA systems) are manually disconnected and moved to SCU storage
- All loose equipment from carparks or undercroft areas (e.g. fencing, bins, materials) is removed or secured
- Sensitive equipment such as Chromebooks, iPads, and sound systems are documented, labelled, and lifted by Conductor's PA



## **Post-Flood Recovery Readiness**

- Flood-cleanup kits pre-packed with bleach, gloves, masks, mops, generators, and pressure washers
- Gernies, fuel, and tarps stored in maintenance loft
- Maintenance and Project Managers oversee strip-out and sanitation in collaboration with local contractors and insurers

This infrastructure strategy ensures that even in high-magnitude events (e.g. PMF), key education delivery areas remain protected, and the ground floor can be quickly restored with minimal disruption.



# **Section 8: Warning and Information Systems**

Living School Lismore's Brown & Jolly site relies on a multilayered warning system to monitor flood conditions and initiate staged emergency response. This includes direct sources from the Bureau of Meteorology (BoM), the NSW State Emergency Service (SES), and the Lismore Disaster Dashboard, alongside internal alert protocols to ensure rapid staff and parent communication.

The following outlines how warnings are received, assessed, and actioned, aligned with the Australian Warning System (AWS) and the Lismore City Local Flood Plan (2023).

**Table 6. Primary External Warning Sources** 

| Source  | Function   |
|---|--|
| Bureau of Meteorology (BoM) www.bom.gov.au.   | Forecast rainfall and river height alerts at Lismore<br>Rowing Club gauge    |
| NSW SES Alerts (132 500)  www.ses.nsw.gov.au.   | Official flood bulletins, AWS classifications, and evacuation instructions   |
| Lismore Disaster Dashboard <a href="https://disaster.lismore.nsw.gov.au">https://disaster.lismore.nsw.gov.au</a>  | Aggregated data and council-supported alerts                                 |
| Live Traffic <a href="https://www.livetraffic.com/">https://www.livetraffic.com/</a>  | Live information on local road conditions                                    |
| NSW SES Facebook Page  https://www.facebook.com/NSW.SES.Lism ore.City   | Community-focused real-time updates and public notices                       |
| Radio Stations  ABC NORTH COAST 738 FM, 720 FM, 94.5 FM  2NCR 92.96 FM  2ZZZ 100.9 FM  BAY FM 99.9 FM  NTH COAST 900 AM  RADIO 104.1 & 103.5 104.1 FM, 103.5 FM  RADIO 97 97 AM | Emergency broadcasts (738 AM, 94.5 FM) for road closures and evacuation info |



All warning categories are interpreted as forecast-based, ensuring Brown & Jolly response begins before the physical rise of floodwaters to thresholds affecting accessibility.

#### **Internal Alert Systems**

- Warden SMS Alerts: The Flood Warden (John Stewart) receives SES SMS alerts as the primary activation trigger.
- Staff Communication App/Signal Broadcast Groups: Encrypted internal message groups for all staff and transport personnel.
- School Communication Tree: PA announcements, staff messaging app, email, and SMS-to-parent alerts cascade from Warden's command.
- Hardcopy Trigger Sheets: Visible laminated trigger charts posted in reception, maintenance bay, and Z Block staff room.
- Radio Monitoring: BoM emergency broadcasts monitored via battery-powered radios during power failure.

#### **Communication Escalation Protocol**

- 1. River Height Reaches > 4.2m reach: Warden alerts all staff via Staff Communication App and email.
- 2. Moderate Flood Alert Forecast within 24 hours: SCU liaison notified; Bus Manager and Project Manager placed on call. Warden alerts all staff via Staff Communication App and email.
- 3. Moderate Flood Alert Forecast within 24 hours as well as Flash Flood forecast: Community SMS issued to parents; full evacuation initiated. Warden alerts all staff via Staff Communication App and email.
- 4. Major Flood Alert forecast within 24 hours or Flash Flood forecast within 24 hours: Full evacuation initiated. Warden alerts all staff via Staff Communication App and email.
- 5. SES Evacuation Warning or Levee Breach Forecast: Final site lockdown; confirm all personnel safely off-site. Warden alerts all staff via Staff Communication App and email that site clear.



## **Power and Telecommunication Outage Preparedness**

- Two battery/solar-powered radios are available in the EMP kits
- Pre-charged power banks (USB-C and Lightning compatible) included in kits
- Essential staff have hardcopy evacuation roles and contact sheets in case of mobile network failure

This layered system ensures Living School's Brown & Jolly campus can respond promptly and confidently to dynamic flood scenarios, integrating official channels and resilient internal communication.



#### Section 9: Flood Kit Checklist

In the event of evacuation or entrapment due to rising floodwaters, Living School's Brown & Jolly campus must be able to support the short-term welfare and safety of students and staff. Emergency flood kits are pre-packed, annually reviewed, and stored in clearly marked, elevated, and accessible locations across the site. This includes last resort flood refuge zones on the upper floor (14.2–15.12 m AHD) and secured ceiling lofts.

Flood kits are maintained by the Reception Coordinator under the direction of the Warden, and include welfare, communication, lighting, PPE, and basic medical items to sustain staff and students for 24–48 hours if isolation occurs.

#### **Table 7. Kit Storage Locations**

| Location                    | Access Method                 | Purpose                                    |
|-----------------------------|-------------------------------|--|
| Upper Floor Storage<br>Loft | Dorma-style folding<br>ladder | Primary last resort flood refuge stockpile |
| Reception Area              | Staff cupboard                | First aid access + redundant comms         |
| SCU Assembly Zone           | Supplied separately           | Managed by Conductor/PA during transit     |

#### **Table 8. Standard Kit Contents**

| Item                               | Quantity   | Use/Purpose  |
|------------------------------------|------------|--|
| Waterproof headlamps and torches   | 2 each     | Personal lighting during power outage              |
| Emergency crank/solar radio        | 1          | BoM and ABC frequency monitoring                   |
| High-visibility vests              | 10         | For all staff managing students during evacuation  |
| Rain ponchos                       | 10         | Protection during evacuation in wet conditions     |
| Emergency blankets                 | 10         | Thermal support stored in last resort flood refuge |
| Drinking water (sealed)            | 10 litres  | For hydration in case of overnight isolation       |
| Sealed food packs (non-perishable) | 20+ serves | Nut-free long-life food items (checked annually)   |



| First aid kit (A-grade school standard) | 1                    | Includes bandages, antiseptics, asthma relievers          |
|---|----------------------|---|
| Power bank chargers (USB-C/Lightning)   | 3                    | To power phones and radios for ongoing alerts             |
| Face masks and gloves                   | 30 masks / 20 gloves | For post-flood cleanup PPE or medical protection          |
| Duct tape and plastic sheeting          | 2 rolls / 1 roll     | To seal internal doors, isolate spills or prevent ingress |
| Whistle and air horn                    | 2                    | For manual distress signalling in power outage            |

#### **Maintenance and Inventory Schedule**

- Reviewed every pre-start of Term 1 and topped up before wet season
- Logged in internal Kit Inventory spreadsheet (admin access via Reception)
- Replenished immediately after any deployment or damage
- Expiry dates (medical supplies, batteries, food) tracked and replaced annually

**Table 9. Supplemental Clean-Up Kit (Stored separately – Maintenance zone)** 

| Item                     | Notes                                    |  |
|--------------------------|--|--|
| Bleach & disinfectant    | For safe sanitation after water exposure |  |
| Gloves & masks           | For staff PPE during recovery efforts    |  |
| Pressure hoses (gurneys) | Fuel-checked, stored above 12.0 m AHD    |  |
| Extension cords          | Waterproofed, for power tools post-event |  |
| Plastic bins & buckets   | For sorting damaged items                |  |

Living School maintains this kit not only to ensure minimum welfare conditions during a crisis, but also to support a safe and efficient recovery process post-inundation. All staff receive orientation in kit contents during Term 1 each year, and the checklist is printed and laminated inside the kit lid for immediate reference.



#### Section 10: Plan Review and Drills

To remain effective, compliant, and community-confident, this Emergency Management Plan (EMP) is subject to ongoing review, structured rehearsal, and real-time reflection following flood events. This section details the formal processes Living School Lismore has in place to ensure the Brown & Jolly Flood Emergency Response Plan remains operational, up-to-date, and responsive to both internal changes and evolving external risks.

**Table 10. Annual Review Schedule** 

| Review Frequency  | Trigger   | Responsibility                   |
|-------------------|---|----------------------------------|
| Annually          | Scheduled for Term 4 each calendar year               | Flood Warden and<br>Reception    |
| Post-Incident     | Any time the EMP is activated for a flood event       | Flood Warden                     |
| Post-Construction | If significant building or access modifications occur | Project Manager /<br>Maintenance |
| Staff Turnover    | Upon change in any key emergency role                 | Business Manager                 |

All updates are recorded in the EMP version history and shared with staff at the following term briefing.

**Table 11. Emergency Drill Schedule** 

| Drill Type                    | Frequency                                      | Audience                            |
|-------------------------------|--|-------------------------------------|
| Full Evacuation Drill         | Once per year<br>(minimum)                     | All students and staff              |
| Role-Specific Response Drill  | Term 1 and Term 4 (beginning of each semester) | Flood Warden, Managers,<br>Teachers |
| Communication Cascade<br>Test | Once per semester                              | All staff and SCU liaison           |
| Kit Inspection & Inventory    | Term 4   | Reception + Maintenance             |



Drills simulate forecast-based response, timed action according to AWS alerts, evacuation to SCU, and deployment of emergency kits where applicable. Drills are followed by a staff debrief and reflection session, with improvements documented and applied.

#### **Audit and Compliance Records**

- A dedicated Emergency Management Plan (EMP) Compliance Folder is maintained (digital and printable), including:
  - Version control log and review history
  - Records of all drills and reflections
  - Updated flood kit inventory sheets
  - Contact lists and signed role acceptance by key personnel
  - LCLFP alignment statements and a local technical consulting firm's review correspondence (if applicable)

#### **Community Transparency and Confidence**

- A summary version of this EMP (including triggers and evacuation flow) is shared with families at the start of each year
- Annual updates are presented at Parent Welcome Night and uploaded to the school portal
- Teachers include age-appropriate flood awareness conversations as part of PDHPE/Geography programs

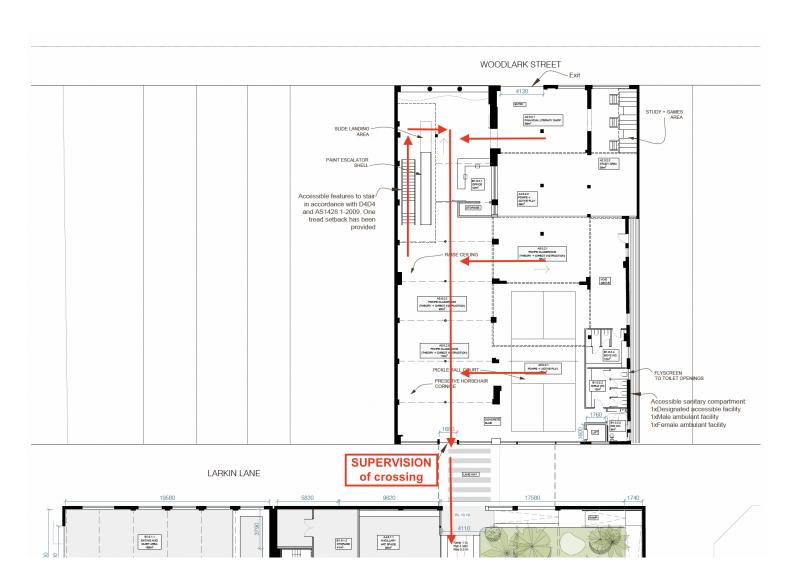
Living School is committed to not only meeting but exceeding its obligations as a school operating in a high-risk flood zone. This EMP is a living document, strengthened by real-world testing and the feedback of our staff, community, and emergency service partners.



#### **APPENDIX A – MAPS FOR EVACUATION ROUTES**

# Woodlark St ground floor

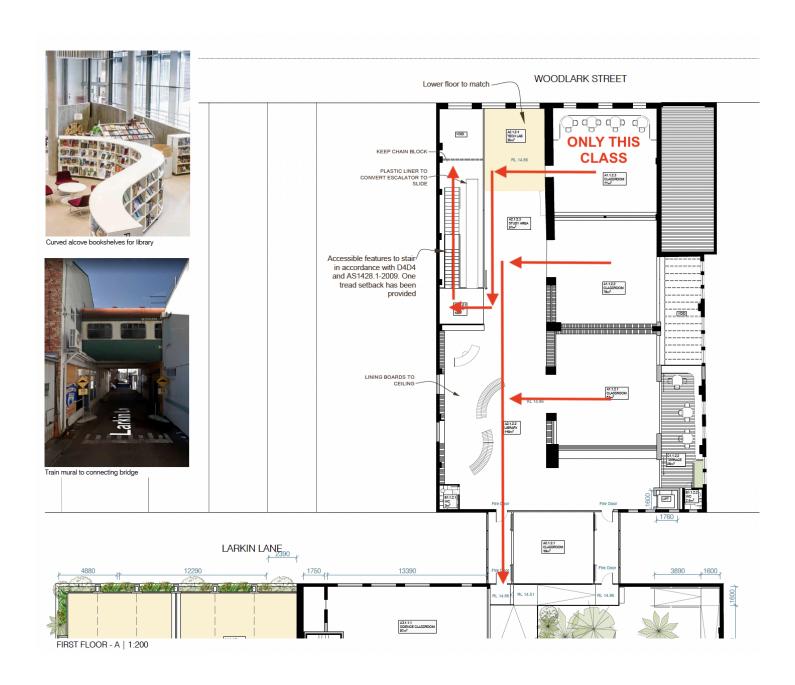
We move through the building to the back area for a safe exit through Larkin Lane. Supervision is managed at the crossing by a staff member wearing a high-vis vest.





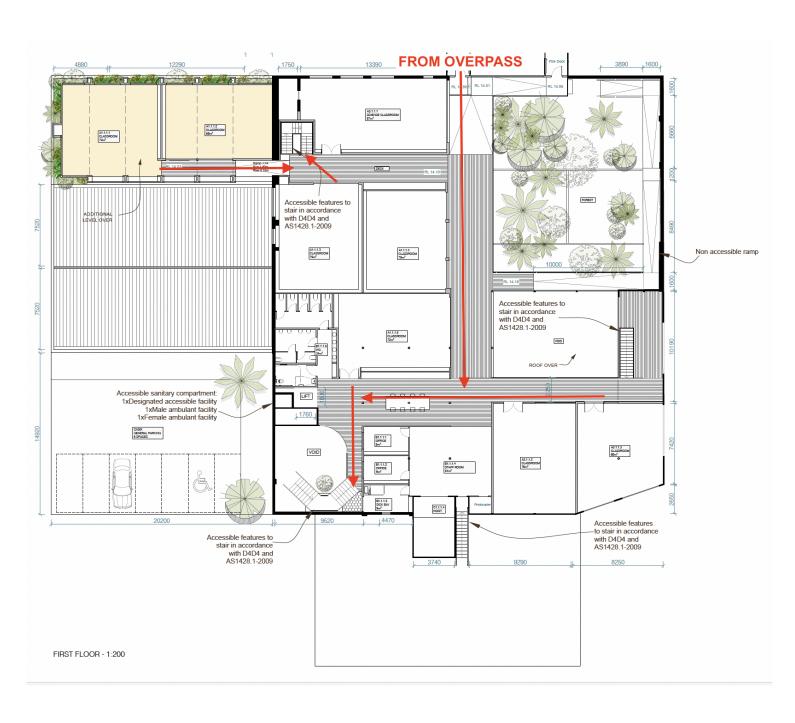
# **Woodlark St Upper Level**

Students move through the building apart from any students/teachers in the front room, who will avoid congestion by moving down the stairs and across the lower level exit route.



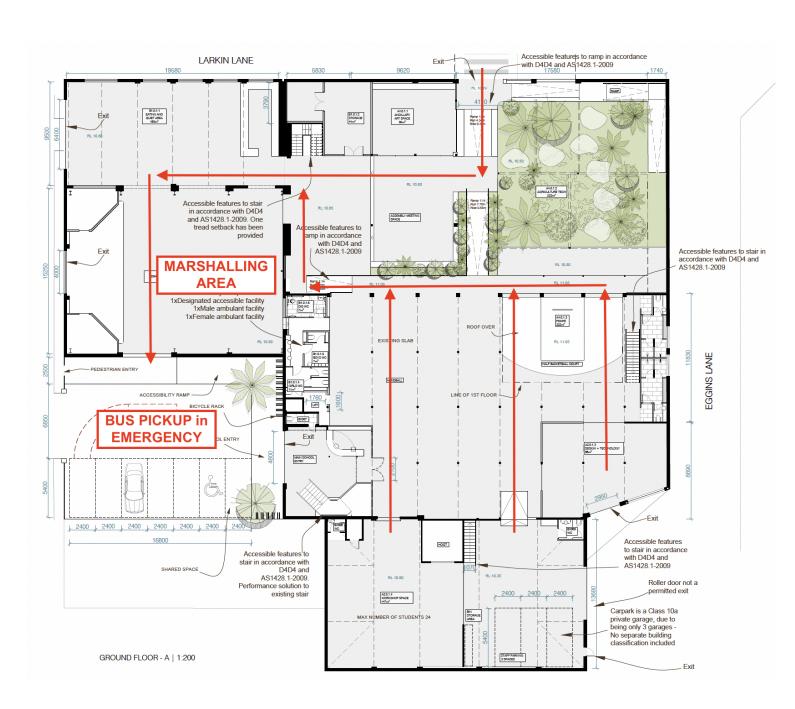


# **Second Level of Carrington Lane Campus**





# **Ground Floor of Carrington Lane campus**





# **Lismore Road Exit Routes**





# **APPENDIX B - EMERGENCY CONTACTS**

Your emergency contacts can include Emergency Services, doctors set. It should also include staff members' family contacts, suppliers, customers and service companies such as electricians and plumbers.

**Table 12. Emergency Contacts** 

| NAME   | PHONE        | WEB LINK                                     |
|--|--------------|--|
| John Stewart                                   | 0432 213 716 |  |
| Police/Ambulance/Fire                          | 000          |  |
| Local Police Station                           | 6626 0599    |  |
| SES (for life threatening situations call 000) | 132500       |  |
| SES  | 132 500      |  |
| NSW Police                                     | 131 444      |  |
| Essential Energy                               | 13 20 80     |  |
| Bureau of Meteorology                          | 1300 659 210 | http://bom.gov.au                            |
| Lismore City Council                           | 1300 878 387 | https://disaster.lismore.nsw.gov.au/         |
| Lismore Base Hospital                          | 6620 2400    |  |
| Lismore Medical Centre                         | 6621 2502    |  |
| Lismore SES Facebook page with links           | CLICK here   | https://www.facebook.com/NSW.SES.Lismore.Cit |
| Lismore Ambulance Station                      | 13 12 33     |  |
| Lismore Fire Station                           | 6621 5660    |  |



#### APPENDIX C - TRIGGER RATIONALE AND TIMELINE ASSESSMENT

A comprehensive timeline assessment has been conducted using historical flood hydrographs (1974, 2017, 2022) and LCLFP estimates. Key findings that underpin the Brown & Jolly trigger system include:

- Once the Lismore Rowing Club gauge reaches 5.0m AHD, the river may rise to 10.0 m AHD within as little as 5 hours, depending on the event.
- Brown & Jolly evacuation must be completed before 10.2 m AHD, which corresponds
  with levee overtopping and the loss of access routes via Conway Street and Ballina Road.
  OUR FOCUS ON SAFETY IS TO ENSURE WE RELOCATE THE SCHOOL TO SCU Z-BLOCK
  WELL BEFORE THIS HAPPENS.
- To manage full site evacuation of students and staff with school owned transport, staging, and confirmation procedures, a time of 3h20m (including an hour of traffic safety factor time per leg—which is consistent with SES Application of Timelines to Evacuation Planning document, Feb 2004) is required.

The adopted evacuation triggers of forecasted river heights reflects this timeline, incorporating additional safety margins for the following identified risks:

- The logistics of managing a large number of school-aged children, some of whom may have additional needs, in a rapidly evolving and stressful environment.
- Local flash flooding from intense rainfall events can impact roads and intersections simultaneously with rising riverine flooding, particularly on Conway Street and near Rotary Park.
- Flood forecasting limitations, particularly with the timing and peak predictions (as evident in the 2022 event), necessitate action prior to full confirmation.
- The likelihood that parents and carers will attempt to reach the site late into the event, increasing congestion and compounding risk. Surrounding towns like Bangalow may lose access to Lismore well before the CBD floods.
- Exposure to severe weather conditions during evacuation including heavy rain, wind, and low visibility can further delay and complicate relocation.
- The potential for loss of power, internet, or telecommunications early in the flood timeline, cutting off access to alerts, instructions, and two-way communication.



#### APPENDIX D - FLOOD HEIGHTS OUTLINE

