

Before You Dig Australia submission on the draft CIRMP guidance - Chapter 6 - Physical security hazards and natural hazards

29 May 2026

About Before You Dig Australia (BYDA)

Before You Dig Australia (BYDA) is a national not-for-profit organisation that operates Australia's primary referral service for underground utility asset location information. BYDA has over 850 asset owner members across the electricity, oil and gas, water, and telecommunications sectors, as well as local councils and some non-utility asset owners, corresponding closely to the asset classes to which the amendments apply. BYDA also has over 700,000 registered service users and processes more than 2.7 million requests for underground utility asset location plans annually.

BYDA became a member of the Trusted Information Sharing Network (TISN) in 2026 and has contributed to SOCI policy development on prior occasions, including through direct engagement with the Cyber and Infrastructure Security Centre (CISC) that resulted in updated guidance under section 42AA of the Act. BYDA welcomes the opportunity to provide further input through this consultation process.

Overview

BYDA welcomes the opportunity to provide our feedback on the design, clarity, and usability of the draft CIRMP guidance: **Chapter 6 – Physical security and natural hazards**.

This submission makes two recommendations to expressly recognise potential damage to utility assets as a material physical hazard risk for critical infrastructure and the inclusion of an additional risk category together with an established control mechanism for the new risk.

Each recommendation draws on BYDA's operational experience and the evidence base developed through its members' direct exposure to the physical hazards which the guidance aims to address.

Recommendation 1: Express recognition of utility damage caused by construction, excavation and other ground-disturbing activity

Chapter six of the draft CIRMP guidance does not specifically include third-party excavation or ground disturbance as an example of a physical security hazard, despite it being among the most prevalent causes of physical damage to critical infrastructure assets in Australia.

BYDA recommends that Chapter 6 **expressly recognises utility damage caused by construction, excavation and other ground-disturbing activity** as a material physical hazard risk for critical infrastructure assets.

This risk is significant, foreseeable and well evidenced across infrastructure sectors. Current **BYDA data indicates that there are more than 30,000 utility strikes each year as a result of third-party construction activity**. This is double the number of utility strikes reported annually, as evidenced in BYDA's 2024 Economic Assessment of Utility Strikes in Australia¹; research which also put that cost to the Australian economy of over \$4.6 billion per year in indirect and social costs, 32.4 times higher than direct repair costs, and up to 160 times higher for telecommunications assets.

Accidental strikes to underground assets can damage or compromise physical critical components, including telecommunications cables, gas pipelines, electricity infrastructure, water and wastewater assets, and other buried services. The consequences may include disruption to essential services, public safety incidents, environmental harm, loss of asset availability or reliability, costly emergency repairs, and cascading impacts across interconnected infrastructure sectors.

The current draft appropriately identifies examples of critical components such as gas pipelines, fibre optic cables and other networked infrastructure, and requires responsible entities to identify physical critical components and maintain processes to minimise or eliminate material risks and mitigate relevant impacts.

However, the guidance would be strengthened by expressly identifying third-party construction and excavation activity as a common, foreseeable and high-frequency source of physical damage to those components.

Recommendation 2: Include additional risk category for construction and excavation-related utility damage in “Material risks for consideration” table (s6.4.1)

Section 6.4.1 (Material risks for consideration) requires responsible entities to consider ways to minimise or eliminate material risks related to physical security hazards and natural hazards (section 11(1)(b) of the CIRMP Rules). Further, section 6.4.2 encourages responsible entities to consider the PSPF when determining suitable mitigations and controls.

BYDA recommends that the “Material risks for consideration” table (6.4.1) include an additional risk category as follows:

Risk category: Construction and excavation-related utility damage

Description: Construction, excavation, drilling, trenching, roadworks, development activity, landscaping, emergency works and other ground-disturbing activity may damage underground or networked critical components where utility asset

¹ <https://www.byda.com.au/wp-content/uploads/2026/02/BYDA-Economic-Assessment-of-Utility-Strikes-in-Australia-2024.pdf>

information is not requested, available, accurate, current, interpreted, communicated or acted on before works commence. BYDA data indicates that more than 30,000 utility strikes occur annually as a result of third-party construction activity, demonstrating that this is a recurrent and material risk rather than a remote or hypothetical scenario. Damage to buried infrastructure may disrupt essential services, create safety or environmental consequences, reduce availability or reliability, and cause cascading impacts across dependent assets, sectors and communities.

BYDA further recommends that the guidance recognise the **Before You Dig Australia process, including the BYDA Digital Utility Portal (BDUP), as an established control mechanism** for this risk (s6.4.2)

For this control to be effective, responsible entities and utility asset owners must ensure that accurate, current and usable utility location information is available through BYDA. This should include the sharing of digital utility location data with BYDA, including GIS-based asset location information where available, so that project owners, designers, contractors and excavators can identify the presence and approximate location of underground assets before construction or excavation activity begins.

The BYDA process and BDUP support responsible entities to reduce the likelihood of accidental utility damage by improving the availability and use of utility asset information at the planning, design and delivery stages of works. BDUP is particularly important because digital utility location information can support better integration of utility data into construction planning, design coordination, geospatial analysis, permit-to-dig processes, project risk assessments and field-based excavation controls.

BYDA recommends that the guidance identify both sides of the control mechanism:

1. **Asset owner / utility obligation:** utilities and responsible entities should provide BYDA with accurate, current and fit-for-purpose utility location data, including digital GIS location information where available, and maintain processes to update that data when assets are installed, modified, relocated, decommissioned or otherwise materially changed.
2. **Excavator / project delivery obligation:** project owners, contractors, designers and excavators should make BYDA enquiries and use BDUP information before undertaking excavation, construction or other ground-disturbing activity.

Suggested controls for inclusion in the guidance are:

- requiring responsible entities and utility asset owners to share accurate and current utility location data with BYDA, including digital GIS location information where available;
- maintaining internal processes to ensure BYDA records are updated when utility assets are installed, altered, relocated, exposed, abandoned, decommissioned or otherwise materially changed;
- requiring BYDA enquiries before excavation, construction or other ground-disturbing activity commences;

- using BDUP to obtain, manage and apply utility asset information relevant to proposed works;
- embedding BYDA / BDUP requirements in procurement, contractor management, permit-to-dig, construction approval, safe work method statement and project risk management processes;
- ensuring utility plans, digital utility information and relevant asset owner conditions are provided to designers, planners, supervisors, workers and contractors before works commence;
- requiring appropriate site verification practices, such as electronic detection, potholing or other non-destructive location methods, where required by the asset owner or the risk profile of the works;
- maintaining escalation processes where utility information is unclear, incomplete, inconsistent, unavailable or indicates the presence of critical assets;
- maintaining incident response and notification processes for suspected or actual utility strikes; and
- periodically testing and reviewing compliance with BYDA / BDUP requirements as part of contractor assurance, audit activity or CIRMP control testing.

Including this risk and recognising both the provision and use of utility location information as control measures, would make the guidance more practical and complete for responsible entities. It would also support better risk management for geographically dispersed, buried and networked critical components by linking asset owner data stewardship, third-party construction activity, control effectiveness and physical resilience.

Conclusion

This approach aligns with the existing structure of Chapter 6 by linking a clearly identifiable physical hazard to practical controls that support the identification of critical components, minimisation of material risks, mitigation of relevant impacts, central management of physical security and natural hazard risks, and management of third-party activities that may affect critical infrastructure assets.

Contact

BYDA is a member of TISN and welcomes ongoing engagement with the Department on these matters. We are available to provide further information in support of this submission.

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