



# **WORKING NEAR SERVICES MANAGEMENT**

Core Operating Procedure

Business Management Systems (BMS) Group

Document No.: HEQ-PCE-00422

**POWERING FUTURES,  
CREATING LEGACIES.**

# DOCUMENT VERSION CONTROL

*Note: Most recent change to this document is highlighted in grey.*

| Rev. No. | Rev. Date  | Details of Revision   | Approved by                   |
|----------|------------|---|-------------------------------|
| 18       | 29/01/2026 | Updates to Section 2.1, 3.2, 4.2.1, 4.2.2, 6.1 removed the Dial Before You Dig (DBYD) and replaced with Before You Dig Australia (BYDA), Updates to Sections 2.3 and 5 as per Live Services minimum standard, and Updates to Section 6 removed the reference to Field Service Advisor and replaced it with Permit Holder. | Zach Humphrey<br>Emma Pacecca |
| 17       | 19/12/2025 | Updated Service Manager responsibilities section to change 'Project Manager' to 'Construction Manager'.   | Emma Pacecca                  |
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| 12       | 09/04/2024 | Amendment to table in Section 4.1.2.  | Brian Olsen                   |
| 11       | 07/02/2024 | Addition of Section 2.3 Examples of Departures and Section 4.1.2 Classification of Subsurface Utility Investigation.  | Brian Olsen                   |
| 10       | 09/11/2021 | Wording updated in Section 2.3.   | Brian Olsen                   |
| 9        | 11/10/2021 | Update to Sections 1.1, 4.2, 4.4 and 6.1.   | Brian Olsen                   |
| 8        | 28/08/2020 | Amendment to Alternative Methodology from COP.  | Brian Olsen                   |
| 7        | 28/02/2019 | Updates to Section 1.1 with additional paragraph regarding BOLT Modules and update to 'Service Manager' responsibilities.   | Brian Olsen                   |
| 6        | 05/09/2017 | Update to Sections 7.1, 7.2, 7.3, 7.4, 7.5, 7.6 and 7.7.  | Brian Olsen                   |
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| 1        | 06/11/2012 | Inclusion into the BMS. | Brian Olsen |

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## Mandatory Process – Working Near Services

Everyone has a workplace health and safety duty when it comes to Working Near Services (WNS). The main duties and obligations are set out below and within the Live Services Guidance Note

|  |  | Services Manager | Services Advisor | Direct Supervisor | Permit Holder | Controller |
|--|--|------------------|------------------|-------------------|---------------|------------|
| <b>1. Nominate Services Representatives</b><br>            | <ul style="list-style-type: none"> <li>Services Manager must allocate/approve all nominated service representatives and document in SCP.</li> <li>All workers must undertake relevant WNS BOLT training and external training as required.</li> <li>Projects with lower service risks may have one person performing a dual role as both the Services Advisor and the Direct Supervisor.</li> <li>Projects with higher service risks, particularly if they are geographically large, may choose to have multiple Services Advisors and Direct Supervisors.</li> </ul>  |                  |                  |                   |               |            |
| <b>2. Risk Management</b><br>                              | <ul style="list-style-type: none"> <li>Risk register must include current WNS risks and regularly updated with new risks as they arise.</li> <li>Review/identify required third party controls and permits issued by Asset Owners (i.e. APA, AusNet, Powercor, NBN).</li> <li>Service clashes and high-risk interactions are to be identified, and adequate controls are to be implemented.</li> </ul>   |                  |                  |                   |               |            |
| <b>Alternative Methodology from the COP</b><br>            | <ul style="list-style-type: none"> <li>Only necessary if a scenario arises that requires works to vary from the regular methodology outlined in the COP.</li> <li>Must be documented in the SCP and PTW and approved by the Services Manager and the <b>Construction Manager</b>.</li> <li>Must be detailed within the Alternative Methodology Work Method Statement (WMS) and approved by the <b>Construction Manager</b>.</li> <li>The WMS is only valid for the duration of the task and must be specific to that construction scenario.</li> </ul>   |                  |                  |                   |               |            |
| <b>3. Develop Services Control Plan (SCP)</b><br>          | <ul style="list-style-type: none"> <li>Can be one plan for the site or broken down into multiple plans, depending on the project's risk/scale.</li> <li>Valid for thirty (30 days) or until the risk profile changes.</li> <li>Must nominate which areas require permits and which areas have had the service positively located.</li> <li>All Before You Dig Australia plans and associated drawings must be attached.</li> <li>Regularly updated when the WNS profile changes (newly installed services when services go live).</li> <li>Service relocation program must be put together as part of the SCP and is to be discussed and locked in with all authorities.</li> </ul>  |                  |                  |                   |               |            |
| <b>4. Investigate, Locate, Prove and Mark Services</b><br> | <ul style="list-style-type: none"> <li>Direct Supervisor, in consultation with the Services Advisor, is to determine the method of locating and proving of services.</li> <li>All live services within 10 metres of the vicinity of the work area must be identified.</li> <li>If live services can't be proven, physical delineation must be established, and zone nominated in SCP.</li> <li>All overhead services within the work area must be measured, protected and visual identification signage erected.</li> <li>Newly installed non-live services should be marked if the service risk profile is high.</li> </ul>   |                  |                  |                   |               |            |
| <b>5. Develop Permit to Work (PTW)</b><br>                 | <ul style="list-style-type: none"> <li>All works undertaken within 10m of live or unproven services must have a PTW Near Services in place.</li> <li>Must be valid for the duration of the task, but not longer than fourteen (14) calendar days.</li> <li>First section developed in the office, referencing SCP information. Administration support may be received to compile PTW, however it is ultimately the Services Manager who is responsible for this document.</li> <li>A register of the current PTWs needs to be documented in the SCP. This provides global visibility of the current permits and the expiry dates.</li> <li>The Service Advisor must thoroughly communicate the requirements of the permit with the Direct Supervisor.</li> </ul> |                  |                  |                   |               |            |
| <b>6. Issue PTW</b>  | <ul style="list-style-type: none"> <li>Must be completed onsite.</li> <li>Direct Supervisor is to undertake a walk through with the work crew and communicate the PTW requirements.</li> <li>Permit Holder is responsible for ensuring the permit is available at all times and everyone involved in the work activity understands and has signed onto the permit.</li> <li>PTW must remain in the work area until expiry date has been reached, or task is completed.</li> <li>When working near live services ensure dedicated Controller that has completed the WNS Controller module is appointed.</li> </ul>  |                  |                  |                   |               |            |

**If this procedure has been followed, you now have authority to work near services.**

## 1. NOMINATE SERVICES REPRESENTATIVES

**Project Manager** to nominate the **Services Manager** role.

The **Services Manager** must allocate and approve all nominated service representatives and document this in the SCP.



Click relevant position to see the duty cards on **Services Manager, Services Advisor, Direct Supervisor, Permit Holder and Controller** roles.

Projects with lower service risks may have one person performing a dual role as both the **Services Advisor** and the **Direct Supervisor**.

Projects with higher service risks, particularly if they are geographically large, may choose to have multiple **Services Advisors** and **Direct Supervisors**.



### 1.1. Working Near Services (WNS) induction and training

All personnel working on a BMD project must complete a site-specific induction. The induction is completed onsite and will cover the project's risks and the requirements for permits to work near services.

As determined onsite, the only exception permitted to this set requirement is where contractors have been approved as working under their own system. By providing the above exception, it does not remove the requirement for BMD staff to explain to the subcontractors' staff and workforce any relevant permits with the obligations for signing onto the permit as acknowledgement and commitment to adhere to the requirements as nominated.

BMD's Working Near Services Core Operating Procedure (COP) is a mandatory requirement. This procedure must be adopted by all subcontractors on BMD project sites.

It is a pre-requisite for BMD personnel to complete BMD's Working Near Services Fundamentals online training module (BOLT). All BMD nominated service representatives must have completed BMD's Working Near Service COP online training module prior to commencement of any nominate WNS role. All nominated WNS Controllers must have completed BMD's Working Near Service to also WNS Controller training module prior to commencement of this WNS role. BMD's WNS Controller does not replaced the asset owner required training.

It is a pre-requisite for subcontractors to complete BMD's Working Near Services Fundamentals online training module (BOLT) **prior to attending site**.

All personnel working onsite must understand the content of the induction and sign/hold appropriate documents or have an electronic acknowledgement available for recognition and recording purposes.

**BMD Online Training (BOLT): Working Near Services modules – Fundamentals & COP** (records are captured in the Employee Training database).



## 2. RISK MANAGEMENT

### 2.1. Risk Identification

**Defined:** Energy in or released from services forms a hazard. The associated risk is that a worker might be harmed if they come into contact with exposure to energy from the service or the likelihood that a service is potentially damaged. Key services risks include:

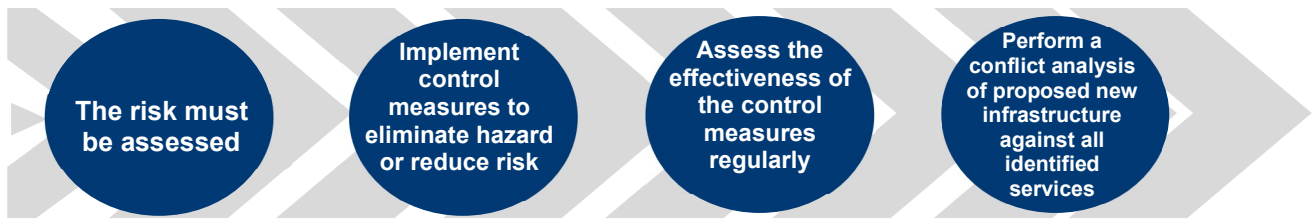
|   |   |  |   |
|---|---|--|---|
|    |    |    |    |
| WORKING NEAR ANY LIVE SERVICE   | WORKING NEAR OR WITHIN A SERVICE EXCLUSION ZONE                                     | FAILURE TO OBSERVE EXCLUSION ZONES   | WORKING WITH AN UNTRAINED DEDICATED CONTROLLER  |
|    |    |    |    |
| SERVICES THAT HAVE THE POTENTIAL FOR UNCONTROLLED RELEASE OF GASES  | OPERATING PLANT NEAR LIVE SERVICES  | NOT IDENTIFYING AN ELECTRICAL HAZARD   | SERVICES THAT HAVE THE POTENTIAL FOR IMPLOSION, EXPLOSION OR FIRE                     |
|    |  |  |  |
| TRANSPORTATION OF HIGH LOADS  | PORTABLE ELECTRICAL EQUIPMENT NOT ROUTINELY SERVICED                                | WORKING ON POTENTIALLY ENERGISED SERVICES WHEN THEY ARE THOUGHT TO BE DEENERGISED    | SERVICES THAT ARE NOT SHOWN ON DRAWINGS   |
|    |   |  |   |
| ADDITIONAL INVESTIGATION MEASURES (ASSETS IN AREA THAT REQUIRE SERVICES (HOUSES OR BUSINESS NEARBY WITH NO SERVICES ON PLAN)) |   |  |   |

BMD's WNS procedure has been developed to manage and control the safety risks of working near live services and services that BMD is not authorised to work on or repair. Non-live newly installed services present a commercial risk only and should be managed under BMD's quality system not safety system. A planned strike of a non-live service that has been installed and can be repaired at BMD's cost doesn't constitute a safety service strike. An example of this kind of service is a newly installed stormwater line that is not connected to an existing network.




Before any work near services begins, the BMD project team must review project drawings, documents and request Before You Dig Australia (BYDA) to identify all existing services on the project. The **Services Manager** is a dedicated person who manages communication with service authorities. The nominated person must consult persons in control of the service to seek appropriate safety advice when working near the asset. **Once the hazard has been identified:**





In a conflict (when new infrastructure conflicts with existing infrastructure), the nominated BMD **Services Manager** will need to engage the service provider ASAP to commence the re-location process. This is vital to ensuring safe management of the project within the timeframes. All known service relocations are to be documented in the SCP.

**Project Manager must ensure BMD’s risk management process is undertaken. Refer to [Risk Management Standard](#) for process details.** 

### 2.1.1. Types of projects – greenfields and brownfields

As part of the risk management process, it is important to determine whether the project is greenfields or brownfields as each:

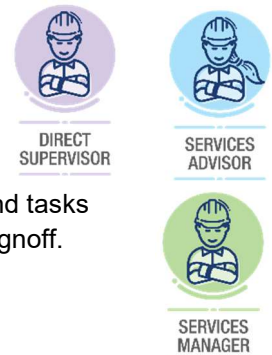
- have different risks
- have different resources
- require different ways of managing.

On a greenfield project, it is important to revert to a brownfields requirement when:

- services go LIVE
- the project requires services to be installed which BMD can’t repair
- the **Services Manager** and **Services Advisor** determine the risk profile is too high. For example, numerous subcontractors onsite.

### 2.2. Activity WMS – inclusion of Working Near Services

The **Services Advisor** and **Direct Supervisor** must ensure that all personnel understand the activity-based WMS and comply with it at all times. The hazards and controls for WNS must be documented within the activity based WMS and must be presented to all personnel onsite. The WMS is to be compiled to ensure that it identifies and captures all items specific to the project (i.e. site specific, not generic).



All personnel involved with WNS are to be consulted to ensure all relevant legislation and tasks are included in the WMS and the **Services Manager** must conduct a final review and signoff.

### 2.3. JHA Card

A JHA card forms the last important step in the risk management process, and is used to empower our teams to **stop, identify and take charge** of the job. Look at the key steps and associated hazards at hand relating to the job at a task level and control them.

## Alternative Methodology from COP

It is understood that during construction activity there may be circumstances where teams need to depart from the set procedures. To allow this alternative methodology, the acceptance procedure is via a risk-

**The Alternative WMS is not the Activity Methodology WMS.**

based approach using the hierarchy of control. This approach **DOES NOT** allow the removal of requirements set by legislation.

Deviations from BMD's WNS procedure may include;

- Mechanical excavation within 500mm of an underground service
- If encroachment into the Asset Owners Exclusion Zone is required

**Deviating from BMD's WNS procedure strictly requires an Alternative Methodology WMS.**

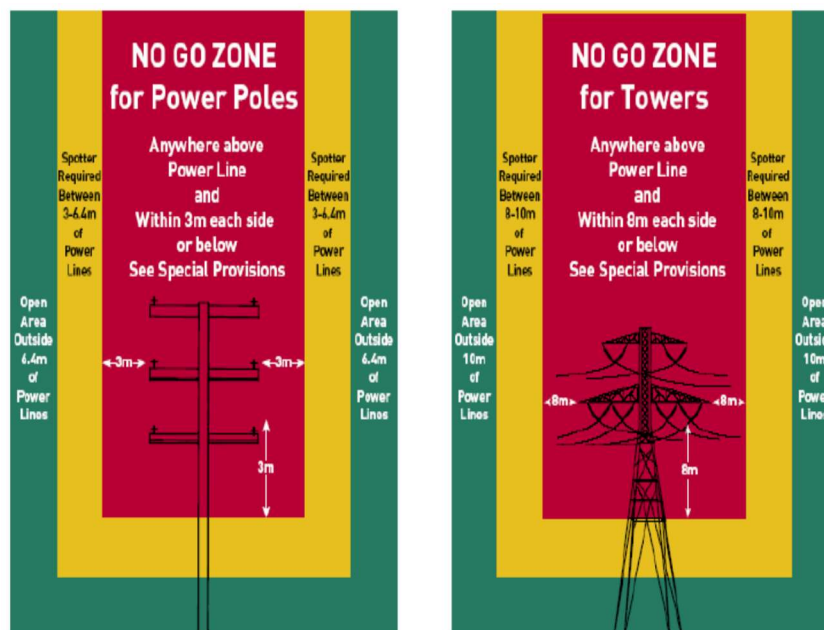
The proposed alternative methodology works must not proceed until:

- As a minimum physical protection of services (e.g. steel plate) must be considered and if cannot be achieved other option must be approved by Construction/Operation Manager.
- A detailed Alternative Methodology Work Method Statement (WMS) has been completed (in consultation with the relevant workforce team undertaking the works) and authorised by the **Construction Manager** in consultation with Senior Management;
- A HSEQ representative has confirmed legislative requirements are still being adhered to prior to commencement;
- The **Project Manager** must review and communicate the Alternative Methodology WMS with the workforce.

**Examples of Departure from set procedures are:**

**Overhead Services**

Where the nominated plant to be used has the capability to encroach in the no go zone (BMD or Asset Nominated zone) then an alternate WMS must be developed and approved prior to works commencing (as per image below). **Note additional approval will be required from Asset Owner.**



### Underground Services

Where the nominated plant is required to encroach within the asset owners nominated no go zones, an alternative WMS must be developed and approved prior to works commencing. Note Asset Owners nominated zones will vary and approval from the Asset Owner will be required. Refer image below.



## Requirements for WNS

Before any person, plant, equipment, worker, subcontractor or any party involved on a project can commence working near services, the **Services Advisor** (in consultation with **Services Manager**) is responsible for undertaking the following mandatory measures and maintain throughout the project's duration.



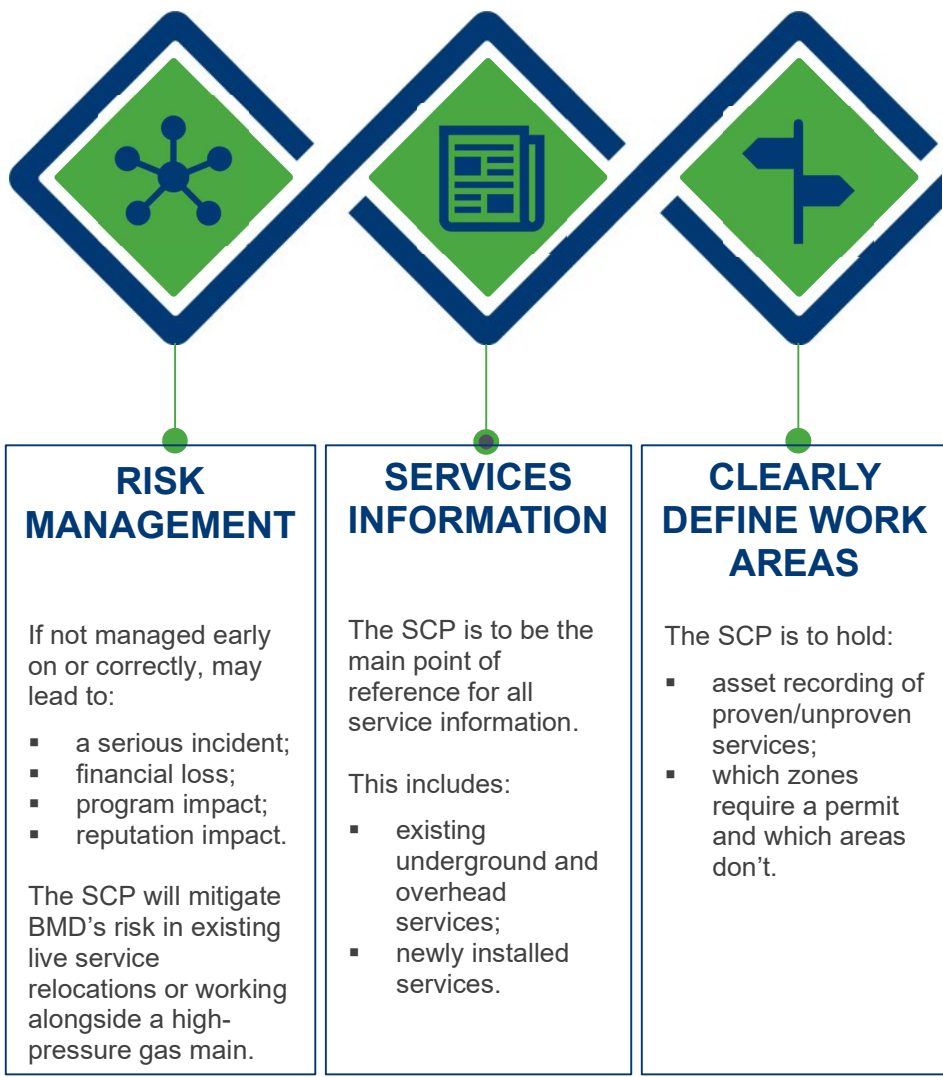
## 3. SERVICES CONTROL PLAN (SCP)

### 3.1. Initial set-up of SCP

**Defined:** The first function of the SCP is to document all the identified high risk works on the project. It shall nominate key activities and their interaction with known assets / services.

The **Services Advisor** must complete a SCP for all works, irrespective of whether or not there are live services onsite.

Critical functions of the SCP:



- The SCP must identify:**
- known existing services present in the work area;
  - all new services recently installed;
  - areas where PTW's will be required to undertake the works;
  - which services have been proven and not proven;
  - how the services will be identified onsite;
  - how the services will be communicated to others;
  - upcoming planned activities e.g. location specific;
  - what specialised equipment might be required to do the works.

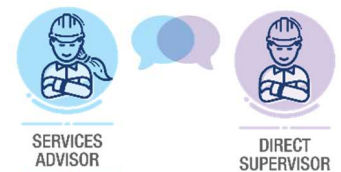
### 3.2. Before you Dig Australia (BYDA)

The **BYDA** plans are to be used as a guide to help identify which services are onsite and to ensure that all services are located relative to the project. If the plans don't contain known services, contact the Asset Owner immediately. The **BYDA** plans are to be used to locate, prove and mark services on the project. The plans are to be referenced whilst developing the SCP and the PTW. The plans are to be attached to the SCP. The **BYDA** plans have a validity period of one (1) month and needs to be renewed upon undertaking an updated SCP.

Contact **BYDA** to collect plans of the services within and around the project. All **BYDA** plans and associated drawings must be attached to the SCP. Where there are numerous existing service drawings and plans, all relevant information must be collated into a simple readable document. The SCP can be used as one plan for the whole site or broken down into multiple plans, depending on the scale of the project and the associated risk.

Consultation between the **Services Advisor** and the **Direct Supervisor** needs to occur to ensure all service information has been accurately conveyed.

The **Services Advisor** may not be the person who requests the DBYD. This can be an administrative task performed by an engineer. The **Services Advisor** is responsible for ensuring it is correct.



The DBYD plans are to be attached to the SCP only, not the PTW.



## 4. INVESTIGATE, LOCATE, PROVE AND MARK SERVICES

All live services within ten (10) metres of the vicinity of the work area need to be identified and conveyed to all personnel working near services onsite.



### 4.1. Locating and Proving Services

Upon collating all the **BYDA** plans it is imperative to investigate, locate, prove and mark services on the project. The **Services Advisor** (in consultation with the **Services Manager**) should determine the appropriate method of locating and proving services after a formal risk assessment is undertaken.



Various methods available to locate and prove services include:

- pipe and cable locators
- hand probing
- non-destructive digging with a hydro vac/sucker truck/lancing
- mechanically by hand tools, plant and machinery
- ground penetrating radar.

Service proving is undertaken firstly to identify all services nominated on the **BYDA** information supplied at the beginning of this process. During this process all efforts and due diligence to identify the possibility of unknown services, is also undertaken.

The **Services Advisor** is to delegate task of identifying necessary services and looking for any tell-tale signs of services e.g. Kerb Markings, Depressions in Ground Surface, Cables Running Up Poles, Pits, Signage, or Disturbed Ground.

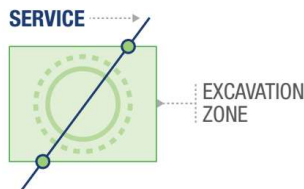
All services are to be deemed LIVE unless otherwise tested and/or as notified by the Asset Owner. Only a trained, competent and authorised person can de-commission or authorise the removal of any service or part thereof.



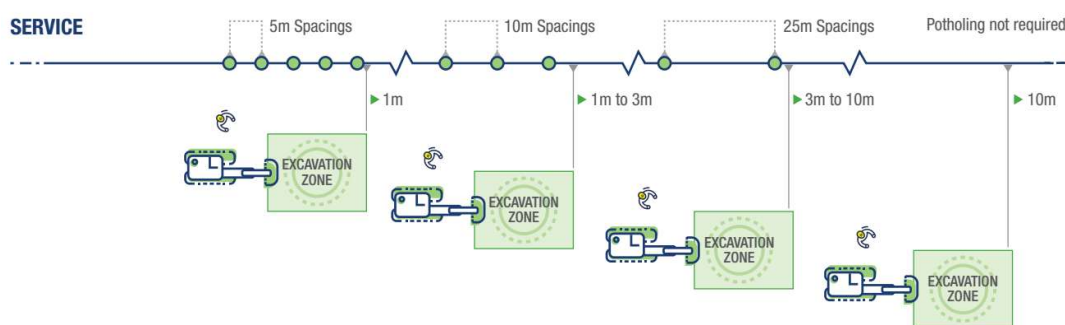
### 4.1.1. Potholing for Underground Services

For safe excavation, potholing is required to prove the exact location of underground infrastructure.

If the service crosses the excavation (within three (3) metres of the base of excavation), then pothole at the crossing points:



If service runs alongside the excavation, then pothole at the spacing shown:



### 4.1.2. Classification of Subsurface Utility Investigation (SUI) Standard (refer to AS 5488)

The table below provides the minimum requirements based around risk associated with the service interaction and is to be utilised for pickup and recording of pothole data. This allows for a risk-based approach in relation to the protection of the service though better recording of information and therefore assist in an improved and consistent service control plan.

| Level of Risk  | Locating of Potholed Services   |                      |  |
|--|---|----------------------|--|
|  | Digital Data  | Responsible Person   | Service Control Plan   |
| <p><b>Low Risk - No interaction.</b><br/>                     Known &amp; Proven Existing services run parallel to design locations.<br/>                     Non-Critical Services</p>    | BMD trained personnel to locate each pothole with rover. Data added to Propeller or equivalent platform as agreed by the Business Unit System Leads and backed up for future set out if required. | Leading Hand/Foreman | SCP can be developed in-house by authorised BMD Service Advisor.   |
| <p><b>Medium Risk - No interaction.</b><br/>                     Known &amp; Proven Existing services run parallel to design locations.<br/>                     Non-Critical Services</p> | BMD trained personnel to locate each pothole with rover. Data added to Propeller or equivalent platform as agreed by the Business Unit System Leads and backed up for future set out if required. | Leading Hand/Foreman | SCP can be developed in-house by authorised BMD Service Advisor. If required, located information sent to Survey for compilation of drawing for inclusion to the Service Control Plan. |

| <u>Level of Risk</u>   | Locating of Potholed Services   |                    |  |
|--|---|--------------------|--|
|  | Digital Data  | Responsible Person | Service Control Plan   |
| <b>High Risk - Direct interaction. Existing services cross with Design Services. Critical Services</b> | Digital Data supplied for input to BMD rover for future set out if required | Surveyor           | Surveyor located and compilation of drawing for inclusion to the Service Control Plan. |

Where survey resources are not available for the digital location of potholes, prior approval from the Group Safety Manager and/or Business Unit General Manager must be obtained and positive visual verification of services as outlined in 4.1.1 & 4.3 should be undertaken to reprove the exact service location if additional excavation works are required in the area

## 4.2. Exclusion Zones

**Defined: An exclusion zone is a safety envelope around a service. No part of a worker, operating plant or vehicle may cross into the exclusion zone while the service is live.**

Exclusion zones keep people, operating plant and vehicles away from live services and associated equipment, such as overhead power lines, live gas lines etc. Keep yourself and anything associated with your activity out of the zone. Attention needs to be given to transporting of high loads or working under the Overhard Service, with the mandatory requirement of establishing and delineating of height limit zone being the minimum of 10 metres either side of the service

**All services have varying exclusion zones and vary across states, jurisdictions and Asset Owners and authorities. It is imperative to discuss exclusion zones with the Asset Owners in all instances. The BYDA requests confirm the state specific requirements for exclusion zones and have the appropriate contact details and relevant information for Asset Owners.**



The **Services Manager** is responsible to ensure that the risk management process is undertaken to ensure that exclusion zones are acknowledged and control measures are in place as necessary for WNS.



SERVICES  
MANAGER

The **Services Advisor** will ensure that all specific exclusion zones are in place for all the particular services and this information is relayed to all personnel working near services and is adhered to.



SERVICES  
ADVISOR

The **Controller** will enact the requirements for the exclusion zones and supervise works. If plant has the potential to enter the exclusion zone, a controller must be implemented.



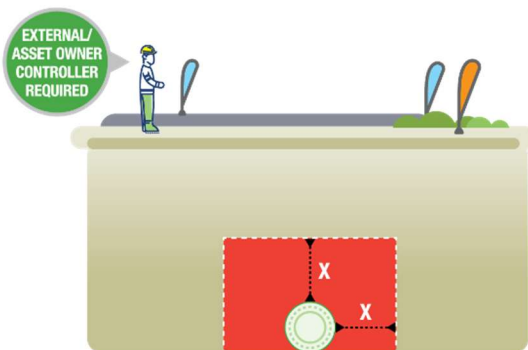
CONTROLLER

### 4.2.1.Zoning Underground Services

Based on the **Before You Dig Australia** process for locating underground services, the **Services Advisor and Direct Supervisor** must determine the exclusion zone and adequately communicate to the site team.



A critical service is an existing service that has specific working conditions, mandated by the Assets Owner which are above and beyond BMD’s standard WNS guidelines when undertaking adjacent construction works. Examples of these conditions include: Asset owner’s spotter is required during all adjacent construction works, no mechanical vibration within ten (10) metres of asset, no mechanical excavation within two (2) metres of asset. The diagram below allows the site team to clearly nominate what these conditions are so they can be adhered to and communicated to the site team:



Asset owner: \_\_\_\_\_

Contract name: \_\_\_\_\_ Number: \_\_\_\_\_

Type of service: \_\_\_\_\_

Additional conditions: 1) \_\_\_\_\_

2) \_\_\_\_\_

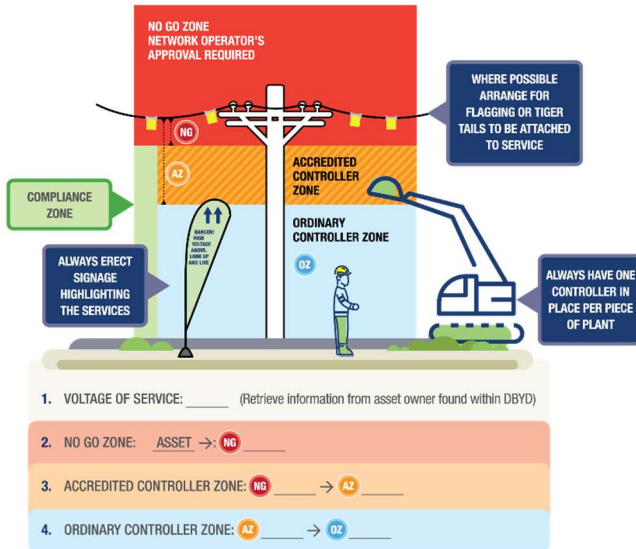
3) \_\_\_\_\_

MINIMUM MECHANICAL EXCAVATION DISTANCE X = \_\_\_\_\_

This is completed as part of the Services Control Plan by the Services Advisor. Data should be extracted from the information provided in the Dial Before You Dig plans.

### 4.2.2.Zoning Overhead Services

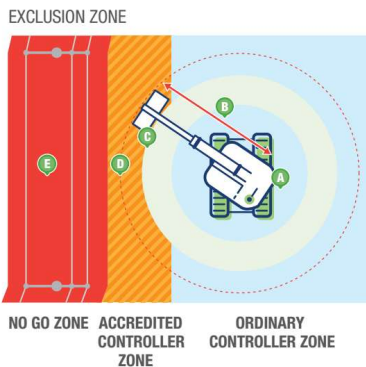
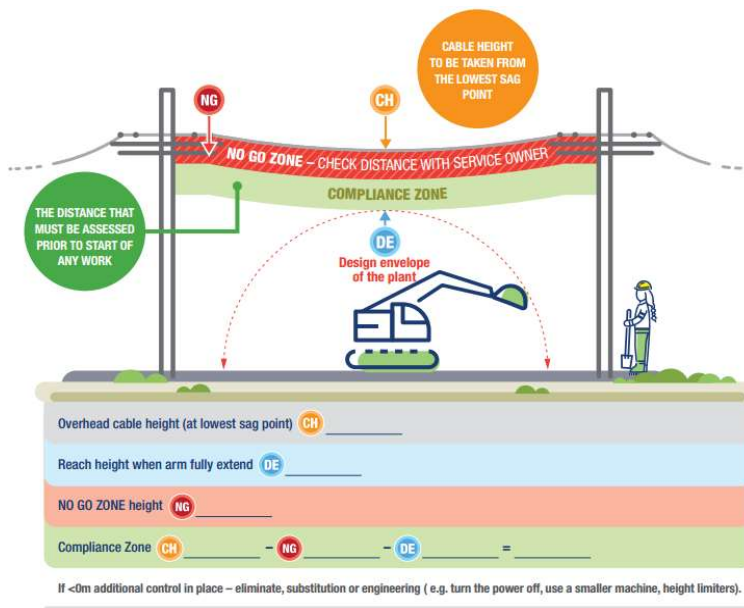
Based on the BYDA process, the exclusion zones for overhead services must be determined. It is the **Services Advisor's** responsibility to complete the below diagram as part of the Services Control Plan process and to communicate this with the **Direct Supervisor**.



This is completed as part of the Services Control Plan by the Services Advisor. Data should be extracted from the information provided in the Dial Before You Dig plans.

### 4.2.3.Physically Assess Compliance Zone Onsite

Before starting works, it is essential for the height and voltage of the overhead electric line and applicable horizontal compliance zones be physically assessed onsite. This is a physical assessment which is completed onsite by the **Direct Supervisor** during the **Permit to Work** process.



### Tips for Direct Supervisor Step 1

An ultrasonic cable height indicator provides a safe and accurate way to measure height. Do not attempt to directly measure using conductive metallic objects or metal tape measures. Measure from lowest sag point.

### Step 2

Always consider the highest reach of the plant in the fleet, e.g. top of truck tipping/ excavator bucket etc.

### Step 3

Use No Go Zone height from Asset Owner.

- A. Crane or plant working near live electric lines.
- B. Maximum slew of the crane or plant.
- C. Load being moved.
- D. The crane or plant is operating in the safety observer zone when any part of the crane or load COULD enter the exclusion zone. Encroachment into the exclusion zone is still strictly forbidden.
- E. Live electric lines on poles and towers.

## 4.3. Marking Underground Services

Once all services within ten (10) metres of the vicinity of the work area have been located and proved, the services are to be clearly marked. Visually marking the services shows the actual location of the service for all personnel working onsite. For underground services, BMD has specific standards of marking services with the use of colour coding and BMD Service Markers:

| Service Type   | Colour        |
|----------------|---------------|
| Water          | Blue          |
| Electrical     | Orange or Red |
| Sewerage       | Grey          |
| Gas            | Yellow        |
| Communications | White         |
| Drainage       | Green         |

**Note:** Service markings should mirror the potholing spacing.

**Note:** Please refer to Australian Standard AS5488 for additional utilities not included here

It is recommended that colour coding is used for the actual conduit colour that marks the service or the colour the conduit marker is painted.

Colour coding is to be used to identify services on the plans attached to the SCP and the drawing within PTW.

All service markers for LIVE services needs to be maintained throughout the project and non-live newly installed services need to be identified on a risk basis. Service markers can only be removed once all work in the area of the services is completed and deemed practically complete.


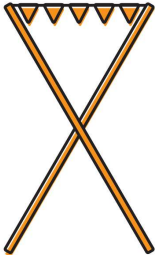


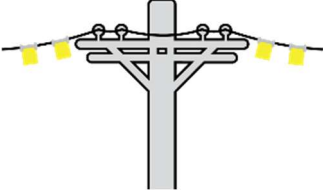




#### 4.4. Marking Overhead Services

Once all services within ten (10) metres of the vicinity of the work area have been located and proved, the services are to be clearly marked, and height limit zone established and delineated. Visually marking the services and height limit zones shows the actual location of the service for all personnel working onsite. Prior to undertaking the works, all overhead services **must** be marked by:

|  |   |
|--|---|
| <p><b>Must</b> be measured using a cable height metre to identify the lowest sag point.</p>  |   |
| <p><b>Must</b> establish and delineate height limit zone a minimum of 10 metres either side of the service. This must be highly visible for reverse machinery and vehicles. <b>No material deliveries are to be tipped within this height limit zone</b></p> |  |

**Must** be marked by the above, as well as **at least** one of the following:

|  |  |  |
|--|--|--|
|  <p><b>Rotamarker</b><br/>Fitted to overhead powerlines by the electricity network operator</p> |  <p><b>Conduits and flagging (day)</b><br/>Placing as totem poles under the overhead services.</p>                  |  <p><b>Feather flag banner (day)</b><br/>Placing under the overhead services.</p>                                 |
|  <p><b>Yellow cut out person (day)</b><br/>Placing under the overhead services.</p>             |  <p><b>Tiger tails (day)</b><br/>Tiger tails fitted to overhead powerlines by the electricity network operator.</p> |  <p><b>Reflective sign with flashing light (night works)</b><br/>If working near services during night works.</p> |
| <p><b>All machines working around overhead services must have the appropriate service stickers completed and attached:</b></p>   |  |   |

All service markers for LIVE services need to be maintained throughout the project and non-live newly installed services need to be identified on a risk basis. The service markers can only be removed once all work in the area of the services is completed and deemed practically complete.



## 5. DEVELOP PERMIT TO WORK (PTW)

A PTW Near Services is required for any works conducted within 10 metres of a live service that pose a risk of contact with or damage to the service.

The Permit must be correct and up to date at all times of the project.



SERVICES  
ADVISOR



DIRECT  
SUPERVISOR

Services identified as non-live (redundant, conduit positively proved as empty) and documented through the WMS, JHA Card and/or PTW prior to commencement of work and can be damaged without being reported as a service strike.



### The PTW must:

- ✓ identify the method of works being undertaken (e.g. excavation / penetration, within proximity of **the live** services);
- ✓ identify the boundaries of the permit and how these will be shown onsite;
- ✓ detail specific known underground and overhead services within the work area;
- ✓ only have one approach, it can be zone or task specific;
- ✓ include a pre-commencement checklist, which must be completed by the direct supervisor prior to authorising the works to proceed;
- ✓ include an acknowledgement that all personnel involved with the relevant activity understand what services are present within the work area and are to sign the PTW accordingly;
- ✓ be listed in the PTW register located within the SCP;
- ✓ be valid for the duration of the task to be undertaken, but no more than fourteen (14) calendar days.

Section 1 of PTW must be completed by the **Services Advisor** in consultation with the **Direct Supervisor**. This ensures the information from the SCP has been accurately transferred to the PTW.

COMPLETE IN OFFICE

Section 2 of PTW must be completed onsite by the **Direct Supervisor** of the activity and must be at the work area while the works are being undertaken.

COMPLETE IN FIELD

If you have followed the correct procedures and have identified that there are no live services within 10m in the work area, you do not need a permit to carry out general work.



## 6. ISSUE PERMIT TO WORK (PTW)

Once all the required information has been communicated with the work area, the **Direct Supervisor** authorises the works to proceed. A conversation and walk-through of the site must occur between the **Direct Supervisor**, **Permit Holder** and the work crew. This must be undertaken as part of the issuing of the permit.



The Direct Supervisor must complete the checklist on pages 3-4 of the Permit to Work onsite. This is a physical check to complete as part of issuing the permit.

Only BMD employees trained in working near services can authorise work to commence and communicate this to the **Permit Holder**. This is the role of the **Direct Supervisor**.

It is the responsibility of the **Permit Holder** to understand the conditions of the permit issued, and monitor the activities being conducted near services within the permit zone.

The **Permit Holder** is responsible for ensuring the permit is available at all times and that everyone involved in the work activity understands and has signed onto the permit before completing any works in the zone.

### 6.1. Controller

A **Dedicated Controller** who has completed the WNS Controller module, must be appointed and is responsible for assisting Plant Operators. The Controller must understand and abide by the no go zones, controller and compliance zones. There must be one controller per piece of machinery.

An accredited controller can work within people and plant exclusion zones; however, this must be detailed within the Alternative Work Method Statement.

The **Controller** is then responsible for assisting operators of mobile plant and equipment in undertaking activities and tasks WNS:

- Assisting plant operators during excavation, trenching and other plant specific activities;
- Maintaining awareness during the movement or reversing of plant when operating in an area where there is a risk to people in the surrounding work area.



# DUTY CARD – SERVICES MANAGER (DUAL ROLE ON MAJOR PROJECTS)



## SERVICES MANAGER

Defined: office based, senior, experienced member of the team.  
 For example: Project Manager, Senior Project Engineer.

| Duties  | Communication  |
|---|--|
| <ul style="list-style-type: none"> <li>The Services Manager is responsible for nominating a representative onsite responsible as a Services Advisor and a representative responsible as a Direct Supervisor, with representatives to be maintained throughout the project duration.</li> <li>The Services Advisor and the Direct Supervisor in consultation with the Services Manager will ensure that all requirements for WNS are undertaken and maintained.</li> </ul> | <ul style="list-style-type: none"> <li>The Services Manager will consult with the Services Advisor throughout the development of the project's risk management and SCP.</li> </ul> |

### Responsibilities

- Must allocate/approve all nominated service representatives. Service advisors must have completed both BOLT Training modules and undertaken the 'Service Location' course.
- Ensures all workers undertake WNS BOLT Training (Fundamentals, COP & Controller) and external training where necessary.
- Updates Project Risk Register with WNS Management Controls.
- Deals with service authorities, working through pricing and engaging to relocate services throughout a project.
- As early as possible runs through what services need to be relocated, and what services are on critical path in line with the project head program.
- Reviews/identifies required third party permits issued by Asset Owners (i.e. APA, AusNet, Powercor, NBN).
- Any alternative methodology from the WNS COP must be detailed within an Alternative Methodology WMS and approved by the Construction Manager.
- Takes reasonable steps to eliminate or minimise risks at the workplace whilst WNS.
- Ensures all work near services has been identified, recorded and risk assessed.
- Responsible for the overall management of the project's SCP.
- Ensures all relevant workers are trained and inducted in WNS.
- Ensures access to Emergency Services is available if required.
- Develops a service relocation plan as part of the SCP and is to be then discussed and locked in with all authorities to then be followed and amended like any program of works.
- Ensures all relevant personnel are appropriately trained to WNS.

# DUTY CARD – SERVICES ADVISOR

## SERVICES ADVISOR



Defined: full time resource to the project, site based, training in WNS, has the authority to stop work.

For example: Foreman, Leading Hand, Project Engineer (100% site based).

Must not be a Labourer or Graduate Engineer or Subcontractor. These roles can assist in administrative functions but will not have responsibility.

| Duties  | Communication  |
|---|--|
| <ul style="list-style-type: none"> <li>The Services Advisor will be nominated by the Services Manager at the beginning of the project, after risk assessing and risk managing the scope of works to be undertaken.</li> <li>All project sites will have a representative onsite that will be responsible as a Services Advisor. The position must be occupied throughout the project duration.</li> </ul> | <ul style="list-style-type: none"> <li>The Services Advisor will consult with the site team and complete a Services Control Plan (SCP) for any works near services to ensure that all requirements are in place. These discussions will include specifics such as: having PTWs in place, holding toolbox talks to go through WMS, having the appropriate plant to perform the task, ensuring dedicated controllers are available, emergency plans etc.</li> <li>The Services Advisor with consultation with the Services Manager will ensure that all requirements for WNS are undertaken and maintained.</li> </ul> |

### Responsibilities

- Must have completed both Working Near Services module (Fundamental & COP) prior to commencing this role
- Must have completed the external 'Working Near Services – Locator Awareness Course' within three months of being nominated.
- Ensure a SCP is completed, regularly reviewed and updated (but not necessarily develop/collect the data held within).
- Ensure all **Before You Dig Australia** plans are collected and current for services onsite and maintained throughout the project.
- Ensure that all services within the relevant work areas have been located, proven and marked with BMD service markers on pre-commencement of task and are maintained as appropriate.
- Ensure that PTW is undertaken and current at all times for the duration of the relevant task.
- Ensure all personnel onsite are inducted to the BMD Online Training: Working Near Services module.
- Ensure SCP, PTW and WMS are developed for all WNS.
- Ensure all exclusion zones for services are identified, adhered to and portrayed to all personnel.
- Ensure that all works near services are being undertaken in accordance with BMD requirements.

# DUTY CARD – DIRECT SUPERVISOR



## DIRECT SUPERVISOR

Defined: field-based role, direct report for the work crew, may be managing multiple work activities.

For example: Foreman, Leading Hand, Senior Labourer.

*May be the same person as the Services Advisor for low-risk projects.*

Must not be a Subcontractor.

| Duties   | Communication  |
|--|--|
| <ul style="list-style-type: none"> <li>The Direct Supervisor is responsible for guiding work groups on their Permit to Work (PTW), in reference to services within their works area, and the BMD procedure to work around the services within the works and has full knowledge of all services within their nominated area.</li> </ul> | <ul style="list-style-type: none"> <li>The Direct Supervisor works with the Services Advisor in producing and implementing the PTW and transfer this information to the work crew.</li> <li>It is the responsibility of the Direct Supervisor to ensure the Permit Holder understands the work conditions set out in the permit.</li> <li>It is the responsibility of the Direct Supervisor to ensure the Permit Holder agrees to comply with all of the terms and conditions of the permit prior to issue.</li> </ul> |

### Responsibilities

- Must have completed both Working Near Services module (Fundamental & COP) prior to commencing this role
- Must have completed the external 'Working Near Services – Locator Awareness Course' within three months of being nominated.
- Inducted in BMD Online Training: Working Near Services module.
- Reviews the PTW with all applicable workers inside the PTW work area.
- Reviews to include an area walk-thru to explain where and how all services have been marked, and what the process of working around or near these services must be adhered to, as per the PTW and the activity based [Work Method Statement \(WMS\)](#).
- Ensures a competent dedicated Controller is assigned and present at all times when WNS.
- Ensures all workers have reviewed, understood and signed off on all appropriate PTW and WMS.
- Ensures WNS is carried out by a competent person who has the tools, equipment and appropriate PPE.

# DUTY CARD – PERMIT HOLDER

## PERMIT HOLDER



Defined: has full time allocation to the activity, can be an internal or external worker.  
 For example: Leading Hand, Senior Labourer, Subcontractor’s Supervisor.

| Duties   | Communication   |
|--|---|
| <ul style="list-style-type: none"> <li>Permit Holder is responsible for ensuring the permit is available at all times and that everyone involved in the work activity understands and has signed onto the permit.</li> </ul> | <ul style="list-style-type: none"> <li>Permit Holder is responsible for receiving the PTW from the Direct Supervisor and communicating with all who may require entry to a specified area which requires a permit.</li> <li>Must ensure everyone involved in the work activity understands and has signed onto the permit.</li> </ul> |

### Responsibilities

- Inducted in BMD Online Training: Working Near Services Fundamentals module.
- It is the responsibility of the Permit Holder to understand the conditions of the permit issued, and monitors the activities being conducted near services within the permit zone.
- The Permit Holder is to ensure the copy of the Work Permit is kept on their person for the duration of the activity.
- After completion of the review, the PTW will then be signed onto by the works group and kept within the lead machine, or representative of the crew’s vehicle, but **MUST** be present onsite “at all times”.

## DUTY CARD – CONTROLLER

### CONTROLLER



Defined: has full time allocation to the activity, can be an internal or external worker.  
For example: Leading Hand, Senior Labourer, Subcontractor's Supervisor.

#### Duties

- A Controller is a competent person delegated to assist operators of mobile plant and equipment in undertaking an activity or task, such as:
  - assisting plant operators during excavation, trenching and other plant specific activities;
  - maintaining awareness during the movement or reversing of plant when operating in an area where there is a risk to people in the surrounding work area;
  - giving direction to the operator regarding movement of other plant and equipment in the area.
- Controllers are to be identifiable as the Spotter for that work zone at all times while undertaking Controller duties only.
- The implementation of a Controller is subject to the Hierarchy of Risk Controls in a WMS and JHA. As such, elimination, substitution and engineering/isolation measures are to be assessed prior to the implementation of a Controller (Administrative).

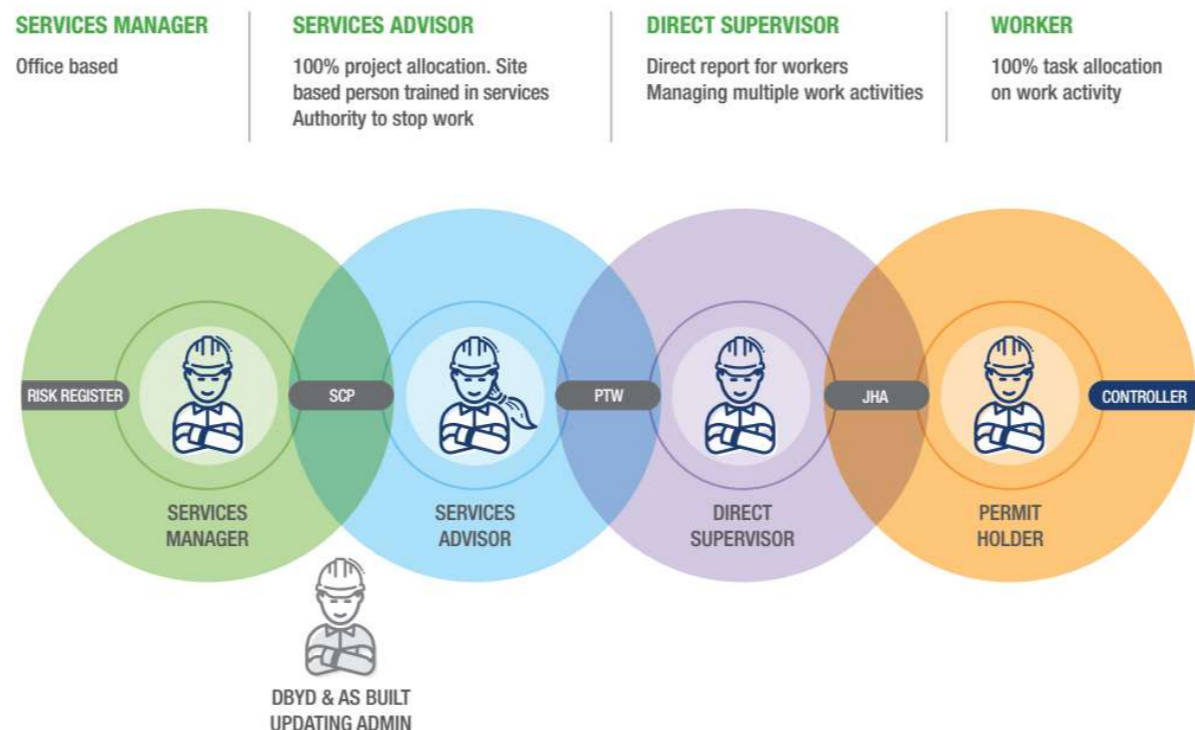
#### Communication

- Prior to movement/activity of plant, positive communication must be established and maintained at all times between the operator and the Controller. This can be achieved by:
  - the use of 2-way radio communication (mandatory);
  - positive line of sight between the Controller and the operator;
  - ensuring that any hand signals to be used are understood by both the Controller and the operator.
- A Controller is NOT the same as a Traffic Controller (if traffic control is required, contact the site Supervisor/Foreman). Should the Controller be required to leave the area, plant movement/activities must cease until a replacement Controller is appointed.

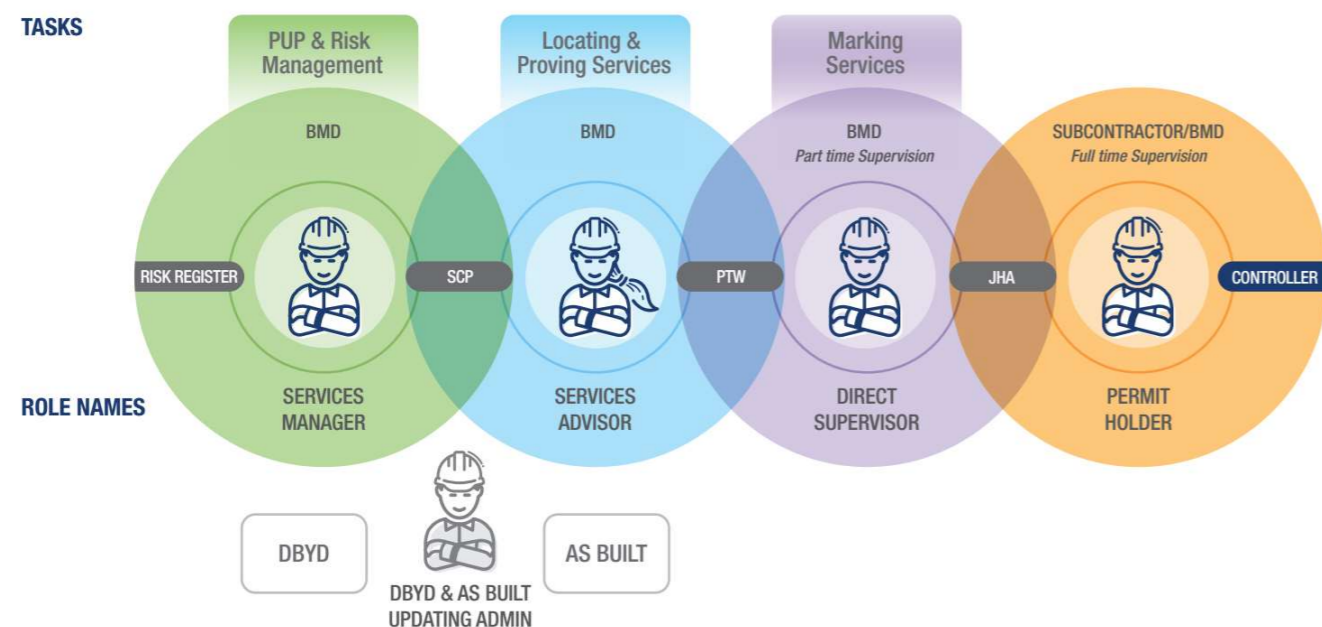
#### Responsibilities

- Inducted in BMD Online Training: Working Near Services Fundamentals and Controller modules.
- Ensures any communication to be used are understood by both the Controller and the Operator.
- Communicates the planned activity to all involved (pre-planning).
- Checks area for obstacles, other pieces of equipment and people prior to allowing plant to move.
- Maintains exclusion zones and restricted zones if appropriate.
- No other duties/activities are to be undertaken while controlling plant movement/activities.

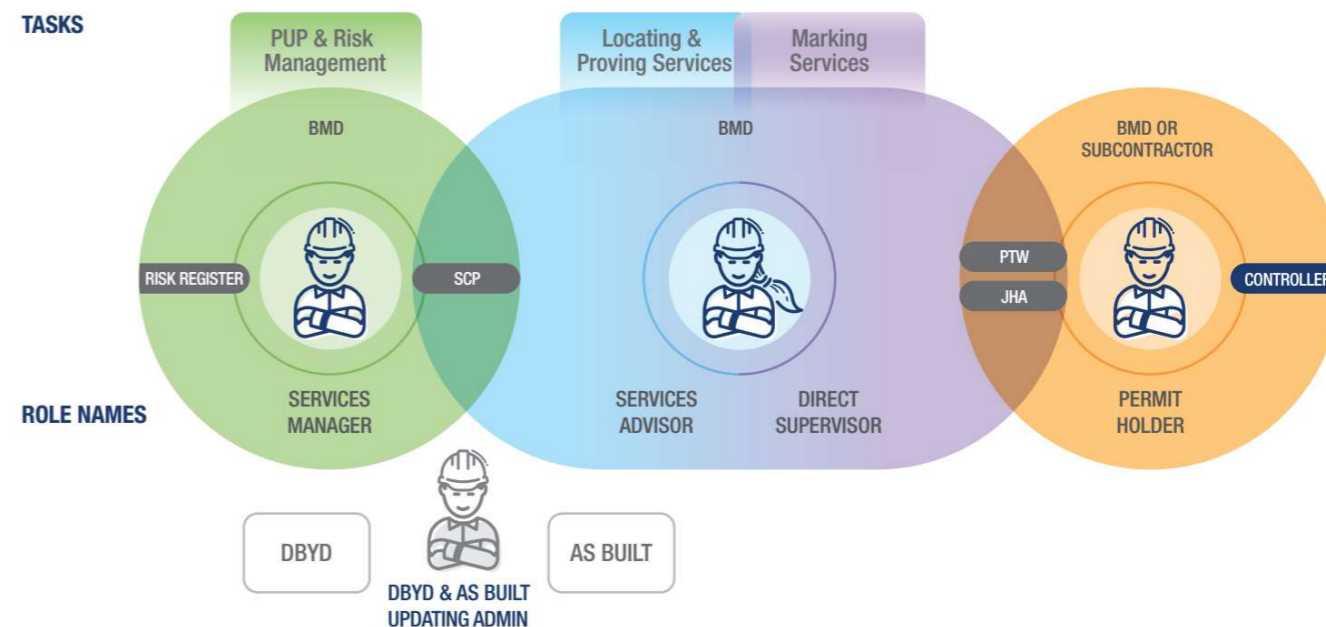
## APPENDIX 1: WORKING NEAR SERVICES RESPONSIBILITIES



## APPENDIX 2: ROLE AND PROCESS COMPARISON (HIGH RISK PROJECTS)



## APPENDIX 3: ROLE AND PROCESS COMPARISON (LOW RISK PROJECTS)



## APPENDIX 4: SERVICES HAZARDS IN BUILDING WORKS

**Defined:** Works in buildings may involve risk of contact with exposed live parts such as:

- **builders removing plasterboard from stud walls near exposed live parts (e.g. socket outlets) or services (e.g. gas and water);**
- **plumbers cutting water pipes near services;**
- **fencing contractors digging holes where services could be buried;**
- **wall penetrations or removal damaging in wall services (e.g. electrical, gas, water etc.).**

Hazards include:

- any service or associated equipment installed in building cavities that may become accessible when either:
  - a part of the building covering the cavity has been removed; or,
  - work is being carried out in the building cavity.
- conductive material inadvertently brought into contact with live parts (e.g. metallic sarking being installed in or removed from a building)
- work activities that could damage services (e.g. drilling or sawing)
- work done in a building or structure where the existence or location of services is not known.

**If the risk is not known, it must be assumed that a hazard could exist.**



## APPENDIX 5: COMMISSIONING, DECOMMISSIONING AND MODIFICATION OF SERVICES

**It is mandatory to adhere to the following requirements when working with commissioning, decommissioning and modification of any services.**



### Electrical Works

Ensure a Work Instruction is in place for connection of temporary power supply, also consider the decommissioning

All electrical power supplies (regardless of voltage) are deemed live and must be positively proven, and documented by competent, qualified and authorised persons prior to commencing any commissioning, decommissioning or alteration/modification of electrical works.

All electrical commissioning and decommissioning works (inclusive of builder pole removal and cabling back to power source be this via a pit, pole or generator) are to be conducted only by competent authorised persons.

All power supply cabinets/switchboards are to be protected by mechanical means (padlock) at all times. When power supply is connected to the cabinet, a sticker identifying “LIVE Power” is to be located on the front of the cabinet.

During isolation and decommissioning works, a lockout tag with date and signature must be placed on the cabinet to nominate that while not connected to buildings or apparatus for use, supply to the cabinet remains.

A BMD procedure for the commissioning and decommission of power supply must be written in the compound establishment and removal WMS. Set timeframes and functions are to be nominated (notification to authorities, supply be confirmed via written correspondence (Authority Notices/Certificates)

All power supplies are to be nominated on the SCP, and PTW to be issued for any works on compounds (mobilisation/demobilisation). All cabinets are to be locked and isolated from general access, only a qualified electrician can install and remove power supply (grid or generator), inclusive of switchboards and builder’s poles.

Where it is found that a breach to this Instruction has occurred, or is occurring, all work must cease immediately until the area is made safe.

Where it is found that staff or a member of the workforce, be it a BMD employee or subcontractor, has breached this instruction, the person who carried out the breach and their immediate Supervisor will be liable to official disciplinary action.

## Gas, Water and Live Sewerage Services

Ensure a Work Method Statement is in place for the connection, decommissioning or modifying any existing service.



All services are deemed live and must be positively proven and documented by competent, qualified and authorised persons prior to commencing any commissioning, decommissioning or alteration/modification works.

**Where it is found that a breach to this Instruction has occurred, or is occurring, all work must cease immediately until the area is made safe.**

**Where it is found that staff or a member of the workforce, be it a BMD employee or subcontractor, has breached this instruction, the person who carried out the breach and their immediate Supervisor will be liable to official disciplinary action as per Appendix 4: Accountability Matrix in BMD’s Incident and Accident Management Standard.**



THAT'S THE POWER OF

