



2024 Revision 2

Protecting Buried Pipelines Information Brochure

For Safely Working Near Water
Corporation Assets





Important information for any work near Water Corporation Pipelines

Working on or near Water Corporation pipelines can be dangerous. At all times the safety of the general public and your employees for your works remains your responsibility.

The information contained in this brochure is for asset protection advice only. For advice concerning personnel safety, Pipeline damage can be expensive, hazardous and highly disruptive to the community. If you are a planner, constructor, supervisor, excavator or work in a similar role this brochure has important information to help you plan your site work and ensure that Water Corporation pipelines are not damaged.

All buried pipes must be visually identified before using powered machinery.

About Water Corporation Pipelines

The Water Corporation operates vast water, sewerage and drainage pipe networks throughout WA. At any given location there may be multiple pipes in the ground of different sizes, depths, alignments and materials.

Many pipes operate at high pressures and flow rates. The sudden release of large volumes of water under pressure may be dangerous to people in the vicinity and could lead to significant damage and community disruption.

Water reticulation mains are present in most streets with individual property services connected to these mains. These property services may be located by finding the property water meter. Property services are not marked on plans, however their presence should be anticipated.

Sewer Gravity Mains, Sewer Property Services and Drainage Gravity Mains are present in many streets and are often within property boundaries. Gravity mains may be located by the presence of an access chamber or manhole along the line of the sewer. Sewer property services are not marked on plans however their presence should be anticipated. See "Private Property" below for more information.

Other assets associated with pipes are: anchor and thrust blocks, sampling points, valves, valve pits, cathodic protection systems, underground tanks, manholes, and flow measuring equipment.

Interfering with or damaging these assets can be hazardous. Some pipes operate at high pressures and volumes, and hazardous gases may be present.





How pipelines can be damaged

Pipes may be damaged by common construction activities such as excavating, drilling, boring, compaction, pile driving, movement of heavy loads, and operating cranes and vehicles. Any damaged must be reported on [13 13 75](tel:131375) (24 hrs).

The Water Corporation must be notified 28 days prior to starting work and approval sought in most circumstances – see below.

| Will the work possibly...? | Examples |
|--|---|
| cause direct contact in any way with a pipeline (including any minor contact with the protective coating) | Scraping with an excavator bucket or directional drilling head. |
| involve digging near to pipe or otherwise disturbing pipe foundations, bedding or other support | A crossing over or under a pipe. |
| cause subsidence of a pipeline, supporting material or structures | Excavating long or deep close to a pipe. |
| cause high loads to be applied to a pipeline or soil cover | Heavy vehicles and material stockpiles. |
| result in high impacts, shock or vibration near to or directly on a pipeline | Heavy vibratory compaction, pile driving, blasting & dropping heavy loads |
| limit access for future works or maintenance | Installing facilities too close to pipelines. |
| cause electrical currents to be applied to induced in a pipeline | Trenchless underground power installation. |
| interfere with cathodic protection systems | Direct damage to cables or affecting voltage potentials |



How to avoid damage

Damage can be avoided by carefully planning and conducting the work. Apply the 5-Ps:

Plan – Prepare - Pothole - Protect – Proceed.

1 - Plan

Before starting site work, request plans from the free [Before You Dig Australia \(Formerly DYBD\)](#) service. Plans usually will be provided electronically within 2 days.

Read and fully understand the plans and any other information provided.

Assess the risks and plan your work to avoid damage and other interference. Use the table above as a guide:

Remember plans (including the location of pipes and other assets) are approximate only. You must use safe and proper procedures to locate the exact location of Water Corporation assets including potholing (see 2 below).

2 - Prepare

Prepare by looking for onsite asset and infrastructure clues such as pit lids, marker posts and meters. Engagement of a DBYD Certified Locator is strongly recommended, which includes undertaking an electronic location survey prior to potholing.

3 - Pothole

Pothole by hand or Ground Penetrating Radar (where permitted) must be carried out prior to excavation to visually confirm pipe location and depth. It is recommended to carry out potholing activities well in advance to verify the position of services and to avoid potential conflicts and delays at construction stage and minimise risk to people working in the proximity of our asset base.

4 - Protect

Use the appropriate measures to prevent pipe damage such as:

- Conducting a detailed utilities survey
- Choosing an alternative excavation or drilling site
- Marking the assets using flags, markings, barricades, signs, or bunting
- Choosing appropriate equipment and ensuring it will be used with care
- Choosing site specific work methods such as excavation planning, supervision, use of spotters, hand digging and shoring.
- Engaging the Water Corporation for site assistance if necessary (charges apply).
- Ensuring site workers are aware of pipes and protection requirements.



5 - Proceed

You are required to meet and comply with all the requirements of Safe Work Australia Code of practice and any state WHS or OHS Acts and Regulations. After you have completed the planning and preparation and have established the steps to prevent damage you can proceed – carefully subject to Water Corporation Approvals being in place. Continue to monitor work for changes.

Under Section 90 of the *Water Services Act 2012*, we require you to request approval if your proposed works are in, on, over, under or within the Prescribed Proximities to our assets. The Prescribed Proximities are summarised in the table below.

Prescribed Proximities. Figure 1

| Type of works | Asset type | Asset size | Prescribed Proximity (distance from the asset) | |
|---|-------------------------|-------------------|---|-----|
| Ground disturbing works Including movement of heavy vehicles, ground compaction, dewatering, earthworks, open and trenchless excavations | Sewer pipelines | All | 2 m | |
| | Main drains | All | | |
| | Water supply pipelines | < 300 mm diameter | 4 m | |
| | Water supply pipelines | ≥ 300 mm diameter | | |
| | Sewer pressure mains | All | | 6 m |
| | Drainage pressure mains | All | | |
| Buildings, structures and other obstructions Including residential/commercial/industrial buildings, pools, sheds, carports, transport infrastructure, services, equipment installed on our assets, stockpiles, ground anchors, large trees | All assets | All | 10 m both sides of the asset 15 m above & below the asset | |
| Pile driving | All pipelines | All | 100 m | |
| Trees | All pipelines | All | 10m Both sides of pipeline. In most cases, the tree will be deemed low risk and approval granted however there are special circumstances where this will not be the case. | |

Work that does not require approval

- Light weight structures, fences and walls than can be readily removed
- Planting and removing trees that have a mature height of less than 5 m

Note that requirements still apply to these types of works – refer to the [Water Corporation Technical Guidelines](#)



Notification of intention to work near Water Corporation pipelines.

Whether you are a property owner, contractor or developer, and you intend to **excavate** or do other **ground disturbing work** near Water Corporation pipelines as listed below you may require approval before working near our assets. Please refer to [Figure 1](#). It is **required** that you notify the Water Corporation at least **28 working days** prior to commencing work to discuss plans with a technical advisor. The technical advisor may require a detailed assessment of your works which can be applied for via the Water Corporation's [Working Near Our Assets Portal](#) to let us know about your project and to seek our approval for doing any of the following types of work in, over, under or within the Prescribed Proximities as defined in the [Figure 1](#).

Please note: where a detailed review by Water Corporation is required, timeframes may extend in order to process your application and provide relevant approvals.

- development of key infrastructure (such as freeways, railways, bridges, tunnels, major building developments)
- installation of buried and overhead services
- movement of heavy vehicles
- causing excessive vibrations (such as blasting, pile driving, ground compaction)
- dewatering
- earthworks
- open and trenchless excavations
- planting and removal of trees
- installation of equipment (such as telecommunications antennas) on our assets.

Make sure you have detailed information about the location of our assets before you apply. This includes [Before You Dig Australia](#) plans and potholing information (where required).

Please complete and attach to your application the [Asset Protection Risk Assessment Form](#) (APRA) to assist in the processing of your application. The relevant sections to be completed are shown on the example APRA form.

In accordance with the [Water Services Act 2012](#).

A person must not:

- Erect, construct, install, place or demolish any building, plant, wall, fence or other obstruction in, on, over or under, or within the prescribed proximity to water service works of a licensee, except in accordance with the approval of the licensee.
- Drill, bore, excavate or use impact equipment within the prescribed proximity to water service works, of a prescribed kind, of a licensee, or engage in any other activity within the prescribed proximity that may damage those works, except in accordance with the approval of the licensee.

Penalty for an individual: a fine of up to **\$10,000**

The Prescribed Proximities have been established to protect our assets and your work from damage, as well as to ensure that you avoid costs and inconvenience associated with ceasing, demolishing, removing or altering your work as necessary to protect our assets.

In most instances work conducted outside of the Prescribed Proximities will have no impact on our assets, however in all situations you must still assess the risk of potential damage associated with your work. If you have any doubts about the potential for your work to cause damage email us at POS_enquiries@watercorporation.com.au



For **assistance with information** on Water Corporation assets supplied through Before You Dig Australia's website [Before You Dig Australia \(BYDA\)](#).

On-site locations - If you cannot locate a Water Corporation asset on-site call [13 13 75](#) (all hours) to request an on-site location which may be arranged where possible. Charges apply. See also [Before You Dig Australia Certified Locators](#) via the BYDA Website.

Private Property - For additional information about private services contact [13 13 95](#) between 8 am and 5 pm weekdays.

Plans of private property sewers may be available at cost from any Water Corporation Business Office or the Master Plumbers Association.

Building approval is required from the Water Corporation for new buildings, building improvements, parapet walls, retaining walls and swimming pools.

The service pipe between the water meter and the house or external tap is the owner's responsibility. It is recommended that this pipe be located by hand digging.

Further information

Avoid damage: **Plan, Prepare, Pothole, Protect, Proceed**



- Visit the Water Corporation website: www.watercorporation.com.au
- Technical enquiries [13 13 95](#)
- General enquiries [9420 2420](#)
- Faults Security Emergencies [13 13 75](#) (24 hours)
- For further information on work planning and pipeline protection refer to the Water Corporation website [working near our assets guidelines](#)
- BYDA Best Practice Guide [BYDA-Best-Practice-Guide-August-2022.pdf](#)
- Utility Providers Code of Practice for Western Australia. Available from Main Roads WA Website: [utility-providers-code-of-practice-for-wa-2021.pdf \(mainroads.wa.gov.au\)](#)