

Date: Friday 26 March 2010 **Issue number:** 2010-2
Issue(s): **Minimum easement dimensions, conditions and restrictions for water and sewerage infrastructure**
Audience: Proponents, Project Managers, Designers, Construction Supervisors, Constructors

Power and Water's Services Development would like to announce the introduction of minimum easement dimensions, condition and restrictions for water and sewerage infrastructure. The attached information will assist proponents with the requirements and processes of easements.

The customer handout will be available from:

http://www.powerwater.com.au/business/for_business_and_developers/water_services_connection_code/technical_requirements

How can I get more information?

Additional information is available from [Living with Power and Water Easements](#).

Power and Water's Services Development Section administer the Connection Code and associated activities. This includes the asset creation design and construction process for the Corporation's water supply and sewerage infrastructure. The Connection Code and Infrastructure Design Approval Process internet pages are available on our internet: http://www.powerwater.com.au/business/for_business_and_developers/water_services_connection_code

Backflow and Trade Waste are managed by the Trade Waste section of Services Development.

Further information is available on the Trade Waste and Backflow site also available on the internet:

http://www.powerwater.com.au/business/trade_waste

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What is an easement and why are they necessary?

An Easement is an encumbrance on private land that gives Power and Water the right to use and have access to the land for the purpose for which the easement is granted. It is generally registered against a property's title and contains a plan showing the dimensions of the easement and its location on the land together with restrictions over the easement area.

If there is an easement on your property it may be registered on your land title and it is likely to include Power and Water owned assets such as manholes, sewer and water pipelines, powerlines or other infrastructure.

Easements are necessary to:

- protect the customer's water supplies and wastewater collection;
- provide access to Power and Water's sewer and water pipelines for upgrades and maintenance;
- inform property owners that there is utilities infrastructure on their property and that care must be taken.

Wherever possible, Power and Water infrastructure is located within road reserves. In most instances, the point of services for the land is located near the front boundary of the property without the need for easements to be granted. However sometimes Power and Water need to install infrastructure to supply new customers or to maintain or improve equipment for existing services. If this can't be done using public land it is achieved by creating easements.

The purpose of an easement is to safeguard Power and Water's right of access to construct, inspect, operate, repair, replace and maintain assets located on private property and to regulate the activities of others within the easement to ensure the safety of all people and safe and reliable operation of the asset. An easement allows full access by Power and Water personnel at all times, subject to normal notification requirements.

Regardless of whether a formal easement exists, the same rights apply over any water and sewerage infrastructure operated by Power and Water.

When is an easement required?

The proposed location of water supply and sewerage infrastructure within private land is not automatically approved by Power and Water and is subject to pre-requisites.

- 1) The developer must satisfy Services Development that the proposed alignment will not create access restrictions or create additional risk to the infrastructure, general public and Power and Water employees.
- 2) The developer will be required to register an easement against the property title in favour of Power and Water and provide evidence of such to the satisfaction of Services Development.

Power and Water infrastructure is generally located within gazetted roads. In most instances, the point of service—that is the water service and water meter and the sewerage service and inspection opening—is located within private land as per Power and Water standards, without the need for easements to be granted. It is considered that this infrastructure is adequately protected by the building set back requirements of most building developments.

Where water supply and sewerage infrastructure is located within gazetted roads, owned by or to be gifted to Power and Water, written approval is required from the relevant road authority or local council.

Water supply and sewerage infrastructure located within Crown Land owned by, owned by or to be gifted to Power and Water, written approval is required from the Department of Lands and Planning (DLP) or relevant authority. A record of Power and Water's interest in the land must be recorded against the land parcel data appearing in the Land Search "Administrative Interests" display of the Integrated Land Information System (ILIS). (This is done upon approval and subsequent completion of survey and the easement or alignment of the infrastructure is noted on the Public Plan by the Statutory Services Survey Branch of DLP.)

When approval is granted, what is the process for securing easements?

The following applies to all water supply and sewerage infrastructure located within land where the infrastructure is owned by or is to be gifted to Power and Water.

Lots with zero lot boundaries—that is where building development is permitted up to the property boundary, the point of service and the infrastructure within—may require easements to be granted to protect the infrastructure by preventing building development. In extreme cases where access is restricted by building development, Power and Water may consider the point of service being located within the road reserve with the written approval of the relevant road authority or local council.

Easements shall be granted to Power and Water over the terminal inspection opening following the final property service on the upstream end of a sewer main where the inspection opening is located within private land.

Water supply and sewerage infrastructure owned by or to be gifted to Power and Water located where access is restricted, may require Right of Way easements to be granted over adjacent land to allow Power and Water access to the infrastructure easement.

Assets other than water supply and sewerage pipes, such as pump stations and valve pits, require consultation with Power and Water to determine minimum easement dimension requirements or the need for Power and Water to be granted title over the affected land.

Generally for major infrastructure such as pump stations, Power and Water would expect the land to be excised from the property and transferred to Power and Water.

Easements cannot be established on Vacant Crown Land, however on completion of survey the alignment of the infrastructure is noted on the Public Plan by the Statutory Services Survey Branch of the DLP.

What are the Minimum Dimensions for Easements?

The following minimum dimensions have been developed for water supply and sewerage infrastructure to allow for:

- Access for construction, inspection, operation and maintenance;
- Access for reconstruction or repairs when necessary; and
- Separation to reduce the risk of damage to life, property and structures resulting from failure of water supply and sewerage infrastructure.

In the granting of new easements the following width dimensions for easements apply for water supply and sewerage infrastructure owned by, or to be gifted to Power and Water. The easement is to be centrally located over the pipe.

Pressure mains (Water supply mains and sewer rising mains), constructed at a depth greater than 1.5m are subject to increased easement requirements, to the satisfaction of Services Development.

Infrastructure located at non-standard alignments within private land may be subject to increased easement requirements, to the satisfaction of Power and Water.

Non-standard alignments include:

- Where infrastructure is not parallel to the property boundary;
- Where there is a shared easement for services approved by the relevant authorities; and
- Duplication of pipes requiring the pipes to be offset from one another within the easement.

In such cases, easements need not necessarily be located centrally over the pipe; however easement locations shall be to the satisfaction of Power and Water.

In circumstances where two parallel services are approved by Power and Water to be contained within a single easement, the easement requirements will be to the satisfaction of Services Development.

Water assets	
Asset description	Minimum easement width (m)
Water mains ≤DN150	3
Water mains >DN150 to ≤DN450	6
Water mains DN450 and greater	8

Sewer assets	
Asset description	Minimum easement width (m)
Gravity Sewers	
≤1.5m depth to Invert	3
1.6m depth to ≤4.0m Invert	6
4.1m depth to ≤8.0m Invert	10
Trunk sewer ≥DN300	10
Pressurised Sewers	
Vacuum sewer mains (all sizes)#	3
Sewer mains ≤DN150	3
Sewer mains >DN150 to ≤DN450	6
Sewer mains DN450 and greater	8

Depths >1.5m may require additional width easements

Notwithstanding the above, the minimum width dimensions for easements apply for water supply and sewerage infrastructure owned by or to be gifted to Power and Water. The easement is to generally be centrally located over the pipe.

How do I get an easement granted?

Easements or easements in gross can be created in a number of ways:

- 1) By subdivision under the *Planning Act* where land is subdivided or consolidated in accordance with a:
 - a) plan of survey approved under section 49(3) of the *Licensed Surveyors Act*; or
 - b) building development plan registered in accordance with Part IVC of the *Unit Title Act*.
- 2) Subject to the *Law of Property Act* where an easement or an easement in gross is created by the registration of:
 - a) a deed of grant or an instrument of easement or easement in gross under Subdivision 1 of Division 4 of Part 6 of the *Land Title Act*;
 - b) a plan of subdivision, within the meaning of section 4 of that Act, and an instrument of easement or easement of gross under Subdivision 2 of that Division; or
 - c) an instrument lodged with the Registrar-General under section 19(2) of the *Crown Lands Act*.

All costs associated with the creation of an easement or an easement in gross will be borne by the proponent.

How do I know if there are existing easements on my property?

Generally a search undertaken at the Land Titles Office will determine whether an easement is registered on the Certificate of Title to your land. However there are some instances where easements are not registered on the Certificate of Title. Alternatively you can contact Power and Water on 1800 245 092 or Dial Before You Dig on 1100.

Land Titles Office locations:

Darwin

Ground Floor, Nichols Place
Corner Bennett and Cavenagh Streets

Alice Springs

Centrepont Building
Corner Gregory and Hartley Streets

What are my obligations if I have an easement on my property?

If there is an easement on your property the area needs to be kept clear of any obstructions that may prevent access to the assets and/or any underlying pipes or cables. Manholes need to be kept free of garden fillers such as gravel, sand and soil. In some cases manholes can be moved or raised with varying costs to the property owner. Any construction over or within the easement on your property requires written consent from Power and Water. Where development occurs on a property with an existing sewer or water easement, Services Development must be notified and a suitable arrangement developed to allow protection of the existing assets during development of the site.

Who owns the land the easement is on?

The land is not removed from the Certificate of Title. The land remains in the title holder's ownership with an easement registered on title. The rights provided to an easement are attached to the land itself regardless of who owns the land.

Who is responsible for the maintenance of the easement area?

It is the responsibility of the land owner to maintain their property within these guidelines and manage vegetation.

What if I want to make improvements to the area that contains a sewer or water easement?

Easements are generally located to minimise impact on surrounding buildings. To fulfil its purpose every easement must be kept clear for access but some use is permissible. The activities that are/are not permissible are detailed below.

Generally suitable coverage over an easement includes lawn, shrubs or trees. However trees that develop vast and invasive root systems are not appropriate to plant over or near easements as they can crack and break pipes causing burst water mains, blocked sewers or damage to conduits. Before planting a tree you should find out where the electricity, water and sewer pipes are located so that you can stay clear of them. For additional information or to obtain a list of suitable species for planting close to easements contact Power and Water on 1800 245 092 and request to speak to Services Development. Refer to [Allowable Planting in Power and Water Sewer and Water Easements](#).

Relinquishing an easement

Where an easement is no longer required it may be extinguished with the written approval of Services Development. All costs associated with the extinguishment will be borne by the proponent. Appropriate documents are to be submitted by the land Owner to the Lands Titles Office.

Existing Infrastructure

Where existing infrastructure is identified on private land without an existing easement, the matter shall be directed to Services Development for action.

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Permitted activities	Controlled activities	Prohibited activities	Example activities
<p>Some activities and developments may be carried out within water supply and sewer easements without risk to personal safety or infrastructure integrity. These are classified as permitted activities.</p> <p>Activities that are permitted provided safe practices are observed include:</p> <ul style="list-style-type: none"> ■ Domestic recreation. ■ Planting of Power and Water approved trees and shrubs in accordance with Allowable Planting in Power and Water Sewer and Water Easements. ■ Planting of grass for lawns provided no tilling of the soil occurs to a depth greater than 200mm. ■ Laying of removable pavers, blue metal gravel or similar small stones. ■ Bitumen seal. ■ Kerbing. ■ Parking of Passenger Motor Vehicles. 	<p>Controlled activities are acceptable provided the conditions of use are agreed to in writing by Services Development beforehand through a Deed of Indemnity.</p> <p>The following activities may only be undertaken with the written consent of Power and Water and then only under such controlled conditions as Power and Water specifies:</p> <ul style="list-style-type: none"> ■ Earthworks including excavation by hand or mechanised plant and after due investigation by Services Development. ■ Storage of goods including waste bin storage. ■ Parking of large vehicles or machinery. ■ Operation of mobile plant within weight limitations which will avoid infrastructure damage. ■ Excavation by hand or mechanised plant after due investigation by Power and Water for infrastructure location. ■ Reduction of ground cover over infrastructure, in which event additional mechanical protection shall be provided. ■ Increasing ground cover within limits which will not adversely affect access to infrastructure. ■ Installation of driveways across the easement and where protection can be given for vehicle wheel loads. ■ Installation of other buried services, ie Telstra after due investigation by Power and Water. ■ Erection of some types of fences after due investigation by Power and Water. ■ Planting of shallow rooted crops where the depth of tilling does not exceed 200mm. 	<p>Prohibited activities cannot be tolerated under any circumstances or at any time. If such activities or developments are found, action shall be taken to have them discontinued or removed as appropriate.</p> <p>The following activities are prohibited in water supply and sewer easements:</p> <ul style="list-style-type: none"> ■ Storage of flammable material. ■ Storage and use of explosives. ■ Planting of non-approved trees and shrubs. ■ Construction of houses, out buildings, storage sheds, bin enclosures or other substantial structures. ■ Bird aviaries, chicken coops or pet/animal cages. ■ Concrete floor slabs or driveways (reinforced or otherwise) within property boundaries. ■ Domestic power supplies and plumbing. ■ Spas or swimming pools – this includes concrete/tiled surrounds, pumps, filters, blowers, associated pipe work and electrical cable. ■ Overhanging structures up to 6m above easement (ie roof eaves and balconies). ■ Installation of fixed plant and equipment. ■ Placing of garbage or fallen timber. ■ Construction of footings within easement. ■ Removal of artefacts or disturbance of significant sites within the meaning of the <i>Aboriginal and Torres Strait Islander Heritage Protection Act 1934</i>. 	<p>Below are examples of activities that may be allowed.</p> <ul style="list-style-type: none"> ■ Wire or chain link fence – concrete footing for support poles to be no greater than 450mm in diameter and not within 300mm of external edge of pipe/conduit. ■ Shade cloth support – concrete footing for support poles to be no greater than 450mm in diameter – poles to be on outer edge (boundary side) of easement and not within 300mm of external edge of pipe/conduit. ■ Block or brick walls – no part of wall or footing to be wider than 450mm. Must be self supporting if excavated under. ■ Carports – may straddle easement, removable roof, no columns or concrete floors in easement, column supports and not within 300mm of external edge of pipe/conduit. ■ Removable shade cloth structures including those that span the easement. ■ Overhanging encroachments, such as eaves, shall be permitted only if above specified height or is a removable structure and in both cases only with Power and Water written approval. <p>Approval may be given for encroachments outside these guidelines if it is considered that the proposed use will not limit Power and Water's ability to service its customers in a timely and safe manner.</p>

All construction, including fences, over vacuum sewer reticulation will require prior permission from Services Development.

Should it be necessary to remove any permitted structure, the landowner shall be advised in writing by Power and Water to remove the structure within a specified time frame. Removal of the structure shall be at the landowner's expense.

Should the landowner not remove the structure as requested then Power and Water shall carry out such works on their behalf. Any costs may be recovered as a debt due and payable to Power and Water.