

Construction in the Vicinity of and Protection of the City's Network Assets Procedure

1 Purpose

The City of Coffs Harbour (City) requires reasonable access to any network asset to enable maintenance, repair and/or possible replacement in perpetuity. All individuals have a duty of care they must observe when working in the vicinity of any underground network asset.

2 Scope

This Procedure applies to construction of buildings and structures for all types of developments:

- a) Development Applications approved by The City
- b) Complying Developments approved by Private Certifiers
- c) Exempt Developments

This Procedure applies to any developer or contractor building or undertaking construction works in the vicinity of any City Network Assets.

3 Procedure

3.1 Access and Clearances

To facilitate access to mains for repairs or renewal an access corridor 5 metres wide over the main alignment is required.

The City requires that all access structures are accessible at all times in case of urgent maintenance, such as clearing sewer blockages. Access structures include Manholes, Pits, Inspection Shafts and dead ends. Construction activities should not block access structures.

A minimum horizontal clearance of 1 metre is required around access structures as well as a minimum vertical clearance of 4 metres. The horizontal clearance will increase to 2 metres if two or more sides of an access structure are built around or if the access structure is > 1.5m deep. A fourth side must be open and accessible at all times.

Developments on properties with access structures or dead ends must provide a minimum 0.9 metre wide clear access to the structure (e.g. along the boundary between fence and building). This is necessary to allow the City's staff access with their equipment for lid lifting and cleaning.

Developments that locate access structures in secure areas must allow access by the City's operations staff for maintenance or emergency work.

3.2 Existing Structures

Where structures have been built over or adjacent to any network asset without the City's approval then the structure will be demolished, moved or substantially modified so that it complies with this procedure.



Where the City has previously granted permission for a structure to be built in the vicinity of any network asset, no further extensions, additions or reconstructions will be allowed without further assessment.

3.3 Construction not permitted

3.3.1 General

Structures will not be permitted to be built over and/or in close proximity to the following:

- a) Pressure mains, surcharge mains, stormwater mains and critical sewer gravity mains (generally all sewer mains of diameter greater than 300mm and/or deemed to be excessively deep ie. greater than 3.0m), or as determined by the City.
- b) Any network asset that, in the opinion of the City, is in a poor condition. Exposing of the network asset, and/or CCTV will be required prior to construction. This inspection may determine that repair/replacement may be required. Any subsequent repair/replacement work will be at the Applicant's cost.
- c) Sewer manholes, lamp holes, maintenance points and junctions, pits where sufficient clearances cannot be achieved.
- d) City's easements.
- e) Overland stormwater drainage channels. This also includes changing the ground level.

3.3.2 Existing Asbestos Cement (AC) and Vitreous Clay (VC) pipes

In all circumstances the City will not allow construction within the zone of influence of existing Asbestos Cement (AC) and Vitreous Clay (VC) pipes without their replacement/relining with PVC or equivalent pipe material and the installation of relevant protection measures.

In the case of gravity sewer, the City may consider entering a cost sharing agreement where it is beneficial to the City to re-line a complete manhole to manhole length rather than the applicant replacing a shorter section of pipe. This will be considered on a case by case basis where it is cost effective to the City.

This requirement is due to these pipe materials having a higher chance of disruptive failure modes e.g. collapse of AC pipe.

3.4 Within the Zone of Influence

The Zone of Influence (ZOI) is an area extending both horizontally and longitudinally along the alignment of an underground asset. This area is considered as that part of the ground where:

- a. Settlement or disturbance of the ground surrounding the pipe may cause damage to buildings or structures on the surface above
- b. Loads from buildings or structures on the surface may have an impact on the buried pipe

The zone of influence shall be determined by extending a line at an angle of 2 (Horizontal): 1 (Vertical) to the surface, starting from a point 150mm below the invert of the sewer main and half of the trench width measured horizontally from the pipes centreline, see Figure 1.



Table 1: Trench Widths

Pipe Diameter	Trench Width (W) for ZOI Calculation	
≤300mm	900mm	
>300mm - ≤450mm	Diameter + 700mm	
> 450mm - ≤900mm	Diameter + 900mm	



Figure 1: Zone of Influence

Note: The above trench width has made allowance for possible trench support requirements.

It is the City's discretion whether to consider a steeper angle of repose (max 1H:1V) for stiff soils (clays etc.). Geotechnical investigations and a report (relating directly to the underground asset) from a suitably qualified and experienced Geotechnical Engineer is required to be provided by the applicant to support such requests.

4 Types of Construction Activity

4.1 Buildings and Structures

This applies to but is not limited to heavy or permanent structures such as: dwelling houses/units, factories, warehouses, enclosed garages / workshops, pools, retaining walls and rainwater tanks etc.

No building and structure (including footings & eaves) should be closer than one (1) metre to the near side from any network asset etc.

Where a network asset is less than 1.5 metres deep, a structure (including footings & eaves) may be built no closer than one (1) metre from the main or manhole/pit, providing the building's footings are supported by approved piers to the invert level of the network asset. Piers supporting the footings will be required for any structure that is within the distance, equal to the depth of network asset, away from that Asset. See Figure 2.

Where a network asset is more than 1.5 metres deep, a structure (including footings & eaves) may be built no closer than two (2) metres from the near side of the main or manhole/pit, providing the building's footings are supported by approved piers to the invert level of the network asset. Piers supporting the footings will be required for any structure that is within the distance, equal to the depth of network asset, away from that Asset. See Figure 2.

A corner of a structure may be allowed to within 0.5 metre of a Network Asset, if the corner is cantilevered on footings & piers that meet the criteria above.



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The corner requires sufficient access along the easement and the location of other services etc, need to be adequate if this corner concession is allowed.



Figure 2: Building in Vicinity of Structures

4.2 Miscellaneous Structures (on private land)

Structures in this category include:

- a. Fences (timber, steel, aluminium)
- b. Driveways (concrete, asphalt, gravel, etc.) See Driveway Policy & Procedures
- c. Paved areas (see 4.5 for retaining walls & masonry fence).

Driveways and parking areas on private land are permitted over a network asset, except hydrants - as per the Driveway Policy and Procedure. Where manholes/pits, inspection shafts (I.S.), stop valves, etc. are built over, these areas are to be flush with the finished surface level and isolated by jointing material around the manhole/pit or I.S at the cost of the developer. These are required to be inspected by City staff prior to construction.

Structures in this category do not normally invoke network asset protection requirements.

As long as minimum cover requirements for network assets have been met, no special protection measures for the network asset should be required. The minimum cover requirements for network assets are:

- a. Private residential property, not subject to vehicular loading 600mm
- b. Private residential property, subject to vehicular loading 750mm
- c. Non-residential property 750mm
- d. Footways, nature strips, industrial and commercial lots subject to vehicular loading 900mm

However, if uncertainty exists in cases of anticipated high loadings or where network assets have less than minimum cover, you should ask for advice from City staff. Any special conditions applied would be on a case-by-case basis. The requirements for access to the existing network asset outlined in this procedure will apply.

Where the City is required to access the network asset for repairs or renewal, and the City causes damage to City approved Miscellaneous Structures, when carrying out that work, the City will arrange reinstatement to pre-access condition as far as is practicable.

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4.3 Minor structures (on private land)

Minor structures (e.g. open awnings, decks, pergolas, garden sheds and single carports), may be permitted over or adjacent to Network Assets, conditional to these structures being light weight and able to be easily dismantled to allow fast access to the network asset. Special City approval is required in such instances.

Easily dismantled includes:

- a. No fixed connection point to another structure
- b. No footings in exclusion zone
- c. Bolts to allow structure to be easily unbolted/dismantled
- d. No sides/walls/panels, etc on the open structure

Where the City is required to access the network asset for repairs or renewal, and the City causes damage to the approved minor structures when carrying out that work, the City will arrange reinstatement to pre-access condition as far as is practicable.

4.4 Swimming Pools

If an in ground or above ground pool is proposed to be constructed in the vicinity of a network asset, these conditions apply:

- a. Where the network asset is located higher than the bottom level of the pool, the pool may be positioned no closer than one (1) metre from that network asset. Pool coping attached to the pool is classified as part of the pool.
- b. Where the network asset is lower than the bottom level of the pool, a strip footing along the length of the pool adjacent to the network asset, must be provided. This footing must be supported by concrete piers to the invert level of the network asset. Allowable clearance between the network asset and the pool will vary with the depth of the network asset:
 - i. Less than 1.5 meters deep one (1) metre clearance, see Figure 2
 - ii. More than 1.5 meters deep two (2) meters clearance, see Figure 2

Fibre Glass pools may require protection of the wall and coping (facing the network asset) depending on the manufacturers specifications for the undisturbed ground required for support. Piers or equivalent may be required under the coping and the distance from the Network Asset may need to be increased to accommodate the piers. Plans from a suitably qualified Engineer are required to be lodged with the City, for approval, if protection is required.

4.5 Retaining Walls and Masonry Fences

Where a retaining wall or masonry fence is proposed to be constructed parallel to a network asset the strip footing along the length of the retaining wall/fence must be supported by approved piers to the invert level of the Network Asset. Similar to structures, allowable clearance between the Network Asset and the retaining wall/fence will vary with the depth of the Network Asset:

- a. Less than 1.5 metres deep one (1) metre clearance, see Figure 2
- b. More than 1.5 metres deep- two (2) metres clearance, see Figure 2

Where the retaining wall/fence crosses the network asset the strip footings shall be constructed to bridge the Network Asset and be supported on approved piers at least 600mm from the sides of the network asset, and to the invert of the network asset. A retaining wall or masonry fence is not permitted to be built over a manhole/pit etc.



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Note: A Development Application is required for retaining walls over 600mm high. This policy still applies to retaining walls under 600mm high. Staggered/tiered retaining walls will be classified by the total height of the walls.

4.6 Earthworks Over and Adjacent to Network Assets

4.6.1 General

Caution must be exercised when altering the cover to network assets as increased cover may cause the pipe to fail under increased bearing forces; or local increases (such as mass retaining walls) may cause failure due to differential settlement. Manholes/pits might be buried by landscaping. Toes of fill batters may be unstable near pipe trenches or become unstable when trenches are excavated.

Decreased vertical cover may expose the pipe to accidental breakage by transient loading from vehicles. Decreased lateral cover may result in slumping out of the backfill and/or pipe or washing out of sand bedding carrying groundwater.

4.6.2 Filling over Network Asset

The allowable depth of fill that can be placed over a City main depends on the material type and stiffness class of the existing pipe. Site filling that increases the depth of the City's main to more than 2.5m will require an application to the City and subsequent approval.

The placing of fill to excessive depths over City mains is not permitted (3 metres is a maximum depth for practical access) regardless of the structural capacity of the pipe.

No fill is to be placed over any valve, manhole, pit or shaft. Valves, manholes, pits, or shafts are to be raised in conjunction with any site filling. As the City does not permit private contractors to work on the City's live assets, the raising of any valve, manhole, pit or shaft etc. shall be carried out by the City, at the developer or property owner's cost.

4.6.2.1 Excavation over Network Asset

Excavations over network assets should not reduce the earth cover over the main to less than:

- a. Private residential property, not subject to vehicular loading 600mm
- b. Private residential property, subject to vehicular loading 750mm
- c. Non-residential property 750mm
- d. Footways, nature strips, industrial & commercial Lots subject to vehicular loading 900mm

Any proposal to reduce cover over a Network Asset to less than the above will require an application to the City and subsequent approval.

4.6.2.2 Excavation adjacent to Network Asset

There is potential that excavations adjacent to an existing network asset could present a risk of land slip or erosion of soil providing cover and/or side support to the network asset

Any proposed excavation adjacent to an existing network asset should not disturb the zone of stability.

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The zone of stability shall be determined by extending a line at an angle of 3 (Horizontal) to 1 (Vertical) to the surface, starting from a point 1 metre from the pipes centreline and the minimum cover over the pipe, as shown in Figure 3.



Figure 3: Zone of Stability

Excavation within the zone of stability would be permitted only where a suitably qualified and experienced geotechnical engineer has certified that the excavation will not jeopardise the stability of the network asset.

The angle of repose may be increased (max (1H:1V) for temporary earthworks.

Retaining walls may be required to provide support down slope of existing network asset if substantial regrading is proposed.

4.7 Demolition Works

Demolition works are not to damage any network asset and are not to proceed without City approval or contrary to any conditions of approval.

It is the responsibility of the landholder or their agents to undertake an inspection, recording the condition of the City's network asset (manhole, manhole lid(s), meter assembly, hydrants, valve covers and pits etc.) before demolition works commence. A failure to identify faults prior to the commencement of demolition works may result in the City attributing the cost of repairs to the landholder. Any faults found should be reported to the City prior to works commencing.

The City may inspect the site prior to, during or on completion of the demolition, and prior to redevelopment to ensure all conditions of the demolition approval are adhered to. The following actions must be adhered to:

- a. Any network valve, hydrants, manholes, inspection shaft, pit etc. must be located, marked and protected from damage and be accessible by the City at all times.
- b. All hydrants must be accessible to the fire brigade at all times.
- c. Before demolition works commence, a licensed plumber must disconnect the internal water plumbing from the downstream side of the meter.
- d. Before demolition works commence, a licensed drainer must cap the internal sanitary drain (approximately 3 metres from the sewer inspection shaft)



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- e. If required, disconnection of the water service will be undertaken by the City at the property owner's expense.
- f. If required, capping or permanent disconnection of the property sewer connection will be undertaken by the City at the property owner's expense.

If Network Assets are damaged by demolition related activities, the City repair costs will be charged to the person(s) responsible for that damage. Damage occurring inside the property boundaries will be attributed to the property owner. Costs to repair damage occurring outside the property boundary are commonly assigned to the responsible party causing the damage.

4.8 Construction / Civil Works on Public Land or Road Reserves

The following steps must be taken to positively identify any underground Network Asset prior to performing mechanical excavation or driving objects into the ground near buried services:

- a. A minimum separation distance of **300mm** must be maintained between any Network Asset and mechanical digging / boring components.
- b. Physical inspection of the planned worksite and surrounding areas to assess the working environment and identify any other visual indicators of underground Network Asset.
- c. Positive identification of any Network Asset with potential to encroach within minimum 5m of the planned area of works. Positive identification includes the use of nondestructive methods to confirm the location, depth and direction of buried services. Such methods may include the use of vacuum excavation, ground penetrating radar/technology, insulated prodder, locators or hand digging.
- d. Mandatory potholing (visual verification using vacuum excavation or hand digging) of any Network Asset that encroaches within **500 mm** of the planned area of mechanical excavation or ground penetration.
- e. Protect any Network Asset when working in the vicinity of it.
- f. Driveways constructed in residential, commercial, rural or industrial areas to comply with the City's Driveway Policy and Procedures. A hydrant or stormwater pit cannot be located in a driveway as per Driveway Policy & Procedure.

The City may hold individuals and companies liable for all damage caused to their Network Asset if it can be shown that negligent or careless behaviour caused the damage.

5 Construction Exemption

The owner may make special application to the City, for exemption to the protection requirements, if they consider the Network Asset unduly encumbers the building envelope.

The City will consider the approval of building encroachments over the City's Sewer Main Assets, in some circumstances, if the design can ensure no damage will occur to the main and future access to the main will not be reasonably needed.

The process for consideration for exemption is:

5.1 Relocation / Redesign of proposed Building

In all instances the first option considered should be the relocation of the proposed building away from the existing Network Asset.

5.2 Relocation of Network Assets

The City will consider the relocation of existing Network Asset assets if the applicant can demonstrate to the satisfaction of the City that building away from the Network Asset adversely restricts the use of the land. Any relocation works need to ensure all required design



5.3 Building over or Adjacent to Gravity Sewer Mains

The City will consider a building/structure over or adjacent to a City gravity sewer main if the applicant can demonstrate to the satisfaction of the City that relocating the building/structure and/or relocation of the City sewer main is not feasible.

The City gravity sewer main, to be built over or adjacent to, is to be relayed in High Density Poly Ethylene (HDPE) PN16 pressure pipe from:

- a. manhole to manhole, where possible to exclude short lengths of the original pipe.
- b. boundary to boundary with HDPE sewer adaptors (1.0m or 2.0m inside boundary line, depending on the depth of the sewer main) at the City's discretion.
- c. HDPE sewer adaptor to HDPE sewer adaptor (1.0m or 2.0m outside the structures footprint depending on the depth of the sewer main) at the City's discretion.

Note: any pipes that need replacing and have been previously relined, are required to be replaced from manhole to manhole. In some cases, new manholes may be required.

The City sewer main is to be bridged with footings supported on concrete piers at least 600mm from the sides of the sewer main and founded no less than the invert of the sewer main. Any sewer main replacement works, including piers, are to be designed by a certified engineer and lodged with the City for approval.

6 General Requirements for Exemptions

6.1 Footings and Foundations

Where footings are to be supported by piers, the pier size and spacing shall be certified by a suitably qualified engineer to be able to support the footings, and the footings certified to be able to bridge between the nominated pier spacing's.

The building and its foundations are to be designed in such a way that no building loads are transmitted to the Network Asset and where possible, the pipe can be repaired or replaced at any time without affecting the stability of the building.

Where a conflict may occur, the owner shall obtain survey accurate data to evaluate the relationship between the building and the Network Asset.

6.2 CCTV Inspection

Where a proposal to build in the vicinity of any City Network Asset is conditionally accepted by the City or Private Certifier, the following may be required;

- a. A CCTV inspection of the subject City Network Asset be undertaken by the City at the applicant's expense and the results of the CCTV inspection are to be examined by the City prior to the approval of any design required to comply with this policy. The CCTV may be used for a dilapidation report.
- b. Where a Network Asset is classified as Category 4 or Category 5 under IPWEA Condition Assessment & Asset Performance Guidelines, the applicant will be required to upgrade the Network Asset at their cost.
- c. A CCTV inspection (after construction) of the subject City Network Asset be undertaken by the City at the applicant's expense and the results of the CCTV inspection are to be examined by the City. This CCTV inspection may also be used as a dilapidation report, as



the basis to determine any repair work required to rectify damage to the Network Asset caused by the development. Rectification work to be carried out by the City at the applicant's expense.

6.3 Costs

The developer/applicant will be responsible for all costs associated with:

- a. Investigation and design, and any costs associated with seeking approval
- b. If approval is granted, then all construction costs
- c. Repairing any damage to any Network Asset caused by construction near or over that existing Network Asset.
- d. Where a Network Asset is classified as Category 4 or Category 5 under IPWEA Condition Assessment & Asset Performance Guidelines, the applicant will be required to upgrade the Network Asset at their cost.

If the City decides to upsize a main that is to be relocated or replaced to accommodate a development, the additional costs associated with installing a larger diameter main, at the time of relocation/replacement, will be met by the developer/applicant.

6.4 Works as Executed Plans

At the completion of the approved works it is the Engineer/Surveyors responsibility to submit (to the City) an electronic Work as Executed (WAE) plan signed by a qualified surveyor, prior to occupancy/final release. These plans must be drawn to comply with the City's standard WAE drawings.

7 Planting over Network Assets

Tree roots can penetrate into sewerage and storm water pipes through joints or damaged sections of pipe, causing blockages and subsequent overflows.

Certain species are not recommended to be planted near sewer mains. A list of the highest risk species is provided in Appendix A.

When planting trees in the vicinity of the City's Network Assets on private property, careful consideration of the species selection, soil type, planting technique and root control measures are required. Tree planting and growth from trees should also not place any burden in the form of risk or maintenance on adjacent land or property where the City's Network Assets are located. No tree planting is permitted within 1.0m of the City's Network Assets. Root guards are required to a depth of 1200mm for any tree within 3m of Network Assets.

Where private property vegetation is constantly penetrating the City sewer or stormwater pipes, the property owner will be required to remove the vegetation at their cost. If this request is refused, the cost of any future maintenance or emergency works resulting from the vegetation will be charged to the property owner.

8 Definitions

City: City of Coffs Harbour.

Network Asset: Any underground pipe, valve, pit, main, shaft or structure etc. owned by the City.

Sewer Pipes: Sewer pipes are any pipes that convey sewage by gravity.

Sewer Rising Mains: Sewer rising mains are pipes that convey sewage under pump pressure.

Water Mains: Water mains are pipes that convey drinking water under pressure.



Stormwater Pipes: Stormwater pipes are any pipes that convey stormwater by gravity.

Inspection Shaft: This is the pipe rising to ground level that defines the connection point between the owner's pipes and City's assets.

Manhole: Used to provide direct access to the sewer system for maintenance activities. Manholes are located where sewer pipes change direction or approximately every 80 metres on straight sections. Manholes are usually constructed of concrete and are a minimum 50mm above ground level to avoid ponding and inflow/infiltration problems.

HDPE: High Density Poly Ethylene is a designed pressure pipe used to convey sewage by gravity.

Construction Activities: Any structures including buildings, houses, outbuildings, carports, garden sheds, retaining walls, fences, driveways. Any earthworks including cutting and/or filling, directional drilling etc. or any other works that may have the potential to impact the City underground assets.

Easement: Land dedicated for water supply and sewerage assets. Not all land has easements and not all assets are located in easements. If land has an easement it will usually be shown on the Deposited Plan and is described in the Section 88b Instrument attached to the land title.

Root guard: A strong, light and long-lasting plastic sheet that forms an ultra-strong barrier against tree roots.

Position	Directorate	Responsibility
Mayor	City of Coffs Harbour	To lead Councillors in their understanding of,
		and compliance with, this policy.
General	Executive	To lead staff (either directly or through
Manager		delegated authority) in their understanding
		of, and compliance with, this policy.
Director	Sustainable Infrastructure	To communicate, implement and comply with
		this policy.
Group Leader	Strategic Asset Management	To communicate, implement and comply with
		this policy.
Water Services	All Directorates	To plan, action, communicate, implement and
Team Leader		comply with this policy as it relates to area of
		responsibility
City Officers	City of Coffs Harbour	To comply with this policy

9 Key Responsibilities

10 References

- Local Government Act 1993;
- Local Government (General) Regulation 2021;
- AS / NZS 3500 National Plumbing and Drainage Code;
- National Construction Code 2021 Volume 3 Plumbing Code of Australia
- Construction in the Vicinity of and Protection of the City's Underground Assets Policy
- Driveway Policy & Procedures
- IPWEA Condition Assessment & Asset Performance Guidelines



11 Details of Approval and revision

- Approval date: 26/04/2023
- **Responsible Group:** Water and Waste Services
- Responsible Section: Water and Sewer
- Superseded policies/procedures: N/A
- Next review date: 26/04/2027

Table of amendments

Amendment	Authoriser	Approval ref	Date
Changed title to Network Asset	GLT	9.3	26/04/23
2 Added reference to private certifier and applies to exempt &	-		-,-,-
complying developments			
3.1 Access corridor increased to 5m			
Vertical clearance increased to 4m for excavator clearance			
3.2 Added structures built adjacent to Network Asset			
3.3.1 Added overland flow for storm water			
3.4 Geotechnical report to relate directly to the underground			
network asset			
4.1 Reworded distance for pier requirements			
4.2 Hydrant not permitted in driveways expanded detail.			
Added finished surface level, jointing and inspections from old			
3.2 Added minimum cover for footways, etc.			
4.3 Added Minor Structures from old 3.2 and added definition			
for easily dismantled, Changed the City's responsible for			
damage added detail to description			
4.4 Clarified pool coping part of pool structure. Added			
protection for fibreglass pools			
4.5 Decreased pier distance from side of main to 600mm.			
Added DA required for retaining walls & Staggered/tiered walls			
measured by the total height			
4.6 Added minimum cover for Footways, etc. Added at			
Property owners cost			
5.0 Construction Exemption from old 3.2			
5.2 Added relocation works at applicant's cost			
5.3 Reworded and added 3 ways of replacing pipes and added			
replacing lined pipes from manhole to manhole, changed			
distance of piers to 600mm			
6.2 Reworded CCTV to be pre construction and post			
construction for dilapidation report. Added upgrade at			
applicants cost if required.			
6.3 Added applicant to upgrade Category 4 or 5 pipe. Changed			
increase in pipe size to cost by owner/developer			
6.4 Changed WAE signoff to Qualified Surveyor not Registered			
Surveyor and plans to comply with City's standard drawings			
7.0 Added no tree planted within 1 meter and the requirement			
for root guards. Removed reference to drip line. Added			
damage caused by vegetation to be charged to owner.			
Removed ref			



12 Appendix A - Table of species not recommended to be planted near sewer mains

Botanical Name	Common Name	Damage Rating
Cinnamomum camphora	Camphor Laurel	Extreme
Ficus species	Fig Trees and Rubber Plants	Extreme
Populus species	Poplars	Extreme
Salix species	Willows	Extreme
Erythrina species	Coral Trees	Very High
Eucalyptus species	Gum Trees	Very High
Jacaranda mimosifolia	Jacaranda	Very High
Liquidambar styraciflua	Liquidambar Very High	
Araucaria species	Norfolk Island and Bunya Pines	Very High
Brachychiton acerifolius	Illawarra Flame Tree	Very High
Casuarina species	Casuarinas	Very High
Melia azedarach	Australian White Cedar	Very High
Pinus species	Pine Trees	Very High
Platanus acerifolia	Plane Tree	Very High
Schinus molle	Pepper Tree	Very High
Ulmus species	Elms	Very High
Bougainvillea species	Bougainvilleas	High
Cortaderia species	Pampas Grass	High
Grevillea robusta	Silky Oak	High
Ilex species	Holly	High
Lagunaria patersonii	Norfolk Island Hibiscus	High
Ligustrum species	Privets	High
Magnolia species	Magnolias	High
Nerium oleander	Oleander	High
Phoenix canariensis	Canary Island Date Palm	High
Phyllostachys species	Bamboo	High
Toxicodendron species	Rhus Trees	High
Lophostemon confertus	Brush Box, Tristania	High
Wisteria species	Wisteria	High

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