



# Water Cycle Management Plan

2 Figtree Drive,  
Sydney Olympic Park (Site 53)



# Document Control Sheet

Title	Water Cycle Management Plan
Project	2 Figtree Drive, Sydney Olympic Park
Description	
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# 1. Introduction

The site is located at 2 Figtree Drive, Sydney Olympic Park (SOPA Site 53) & currently consists of an existing two level commercial building with external car parking and landscaped areas which is proposed to be completely demolished and replaced with a new residential precinct consisting of 422 residential units across four residential towers, approximately 1500m<sup>2</sup> of retail space with underground car parking.

The proposed site is located within the Sydney Olympic Park Authority (SOPA) Masterplan 2030 Town Centre Central Precinct. The site is bounded by Figtree Drive to the north, Australia Avenue to the east, the Olympic Sprint Lidcombe Shuffle railway corridor to the south and a Fujitsu Data Centre to the west at 4 Figtree Drive.

The development site is located within the Auburn City Council Local Government Area (LGA), however the SOPA Stormwater Management and Water Sensitive Urban Design Policy<sup>1</sup> (The Stormwater Policy) provides the framework for the proposed design.

The SOPA Water Reclamation and Management Scheme<sup>2</sup> (WRAMS) system provides a recycled water service for developments within the Park and its surrounding areas.

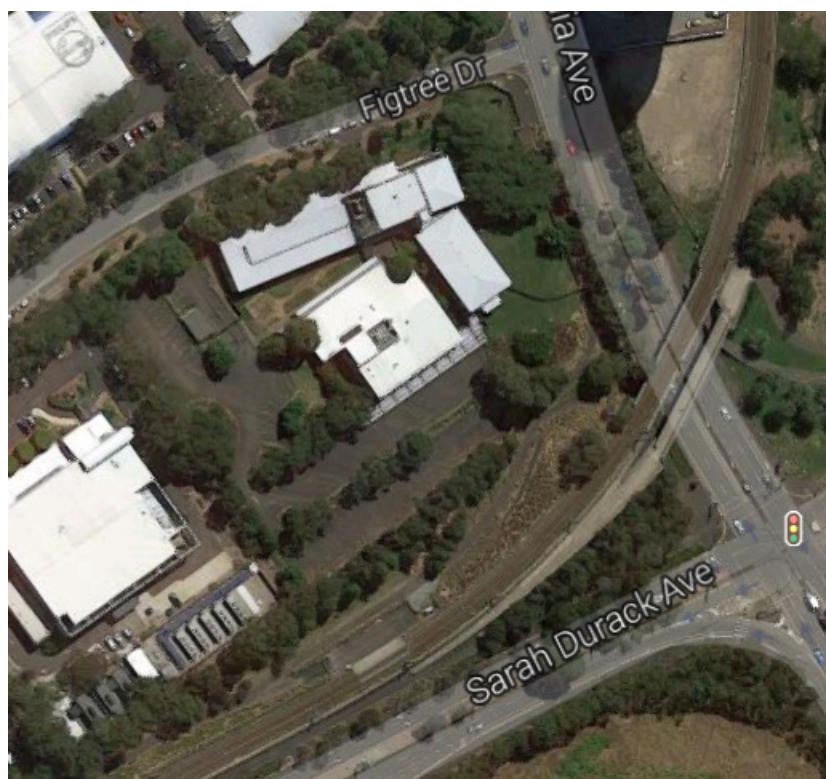


Figure 1 - Site location at 2 Figtree Drive, Sydney Olympic Park

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<sup>1</sup> [http://www.sopa.nsw.gov.au/\\_data/assets/pdf\\_file/0008/950480/Stormwater\\_Management\\_Policy.pdf](http://www.sopa.nsw.gov.au/_data/assets/pdf_file/0008/950480/Stormwater_Management_Policy.pdf)

<sup>2</sup> [http://www.sopa.nsw.gov.au/\\_data/assets/pdf\\_file/0019/344620/urban\\_water\\_reuse\\_brochure\\_2006.pdf](http://www.sopa.nsw.gov.au/_data/assets/pdf_file/0019/344620/urban_water_reuse_brochure_2006.pdf)

## 2. SOPA & WRAMS Policy Guidelines

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The “SOPA Stormwater Management and Water Sensitive Urban Design Policy” (version 1, dated January 2015) requires that new developments maximise roof water collection and re-use for non-potable applications which we propose to fully comply with.

The SOPA policy requires that (where practicable) at least 90% of non-potable water use should be from locally sourced onsite roof water harvesting. The proposed management plan has achieved a figure of 93.5% of the irrigation requirements for lawns and landscaping utilising 91% of the available roof water that can be collected.

The WRAMS recycled water mains will supplement the landscaping watering system when the roof water tanks are expelled in accordance with Section 1 of SOPA’s Policy. (Please refer to Section 3.3 of this report for our detailed modelling results.)

An integral part of the management plan is to make connection to & utilise the Parks’ WRAMS network to supply the residential non-potable demand for toilet flushing, washing machines and any balcony hose taps.

Due to the scale of the development and the limited roof catchment available it is not practicable to supply the internal non-potable uses (toilet flushing etc.) from locally sourced roof water so in the interests of simplicity and ongoing reliability the roof water harvesting system will be dedicated to serving the irrigation system to avoid reticulating two recycled water systems (roof water and WRAMS) to every apartment.

Providing dual reticulated recycled-water & rain water systems is complex where only recycled water is metered via WRAMS internally plumbed to each residential unit and fitted with automatic changeover solenoid valves (~ 700) to switch from roof water to WRAMS according to availability would be unnecessary.

This is impractical for the residential owners corporation to have to deal with on an ongoing basis and is of real concern when it comes to operations of toilet flushing which is one the most basic fundamental health issues of sanitary requirements. Requiring a future residential owners corporation to manage, maintain & operate a hybrid system involving ~700 solenoid valves and a sensitive rain water treatment asset places an inordinate amount of unnecessary operational responsibilities and liability on the owners corporation

The recycled water mains will also supply the fire main in accordance with standard Sydney Water Policy within the SOPA precinct.

### 2.1 SYDNEY WATER SECTION 73 APPLICATION REQUIREMENTS.

Sydney Water have advised, via a Section 73, Notice of Anticipated Requirements (NOR) application (extract below) that the existing 150mm Non-Potable Water Main that currently exists on Figtree drive and has the capacity to meet the anticipated non-potable water and fire services demands of the proposed development.

### 3.2 Recycled Water

Each lot in your stratum subdivision must have a frontage to a recycled water main that is the right size and can be used for connection.

**Sydney Water has assessed your application and found that:**

**The existing 150mm recycled water main in Figtree Drive is available to serve the proposed Lots 5 & 6.** The developer must comply with the standards for Dual Water Reticulation Systems talked about in section 3.2.1 below.

- Proposed Lots 3 & 4 are shown as a Reserve Lot in the Development Plan provided. Therefore, Sydney Water will only make a requirement for this lot when an approval within the meaning of Section 69 of the *Water Board Act 1994* is obtained and an application for a Section 73 Certificate is made.
- Lot 2 is shown as a private road/public road in the Development plan. Because they do not need services, no servicing requirements have been made.

### Fire Fighting

Your firefighting service must be drawn from the recycled water system.

Definition of fire fighting systems is the responsibility of the developer and is not part of the Section 73 process. It is recommended that a consultant should advise the developer regarding the fire fighting flow of the subdivision and the ability of Sydney Water's system to provide that flow in an emergency. Sydney Water's Operating Licence directs that Sydney Water's mains are only required to provide domestic supply at a minimum pressure of 15 m head.

A report supplying modelled pressures called the Statement of Available pressure can be purchased through any Quick Check agent and may be of some assistance when defining the fire fighting system. The Statement of Available pressure, may advise flow limits that relate to system capacity or diameter of the main and pressure limits according to pressure management initiatives. If mains are required for fire fighting purposes, the mains shall be arranged through the water main extension process and not the Section 73 process.

*Figure 2 – Extracts from Sydney Water Section 73 Notice of Anticipated Requirements (NOR) application*

## 2.2 METERING OF POTABLE AND NON-POTABLE WATER SUPPLIES.

In accordance with the Sydney Water Multi-Level Individual Metering Guide<sup>3</sup> (Version 6: 1 July 2015) for potable and non-potable water systems we are required to provide a Sydney Water "Authorities Water Meter" for usage and billing purposes.

These water meters are read in conjunction with all other Authorities potable water meters to measure the potable and non-potable water usage across the site, with information shown on owners / tenants water accounts.

<sup>3</sup>[https://www.sydneywater.com.au/web/groups/publicwebcontent/documents/document/zgrf/mdq1/~edisp/dd\\_045282.pdf](https://www.sydneywater.com.au/web/groups/publicwebcontent/documents/document/zgrf/mdq1/~edisp/dd_045282.pdf)

### 3. Roof Water Harvesting Strategy

All roof water harvesting systems rely on rainfall to initially fill and maintain the balance of stored water verses the demand placed upon the roof water tank system for irrigation. The modelling results have indicated that with a 68,100L storage tank facility the system can provide approximately 93.5% of the annual irrigation requirements for the development.

A top-up connection from the WRAMS recycled water system would be provided as part of our management plan to cover the predicted 6.5% per annum where insufficient roof water is available.

All collected roof water will pass through first-flush pre-treatment and filtration to remove contaminants such as bird droppings, leaves and other debris that collects on the roof to ensure that it is suitable for the intended re-use applications. The first flush water pre-treatment system will discharge the filtered water into the roof water storage tank where it is stored until required before being pumped to the irrigation system for the landscaped areas.

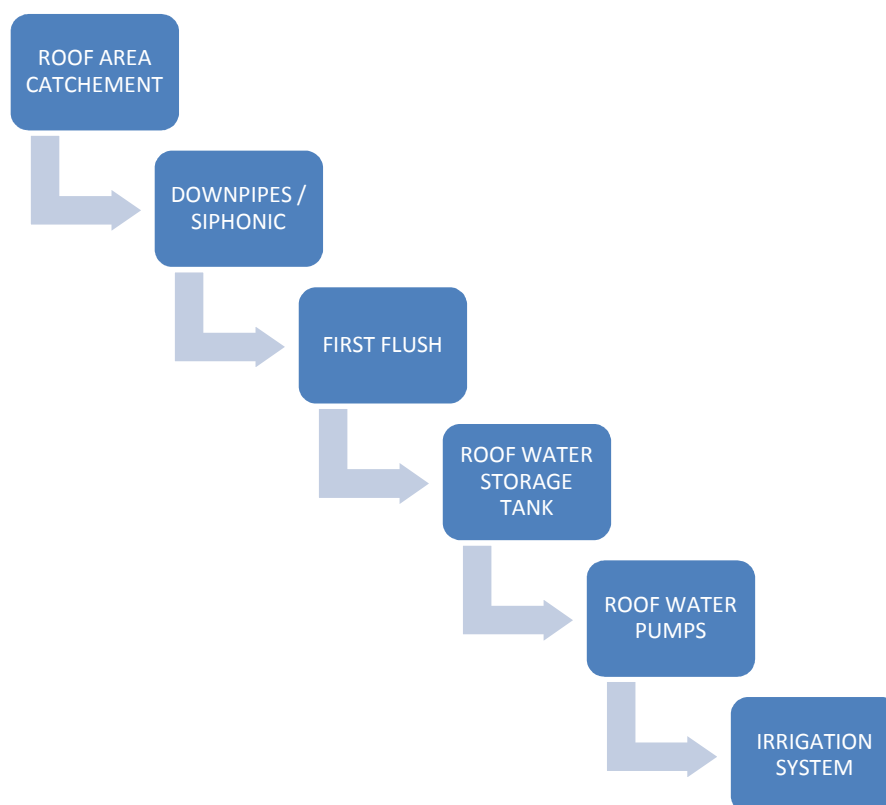


Figure 3 - Flow chart indicating the stages involved in the roof water capture, storage and re-use process

#### 3.1 ROOF CATCHMENT AREAS

Our management plan has assessed the collection of roof water based upon the information below:

##### **Roof catchment areas per building**

West building (4 Buildings) –	1,094m <sup>2</sup>
North Building (1 Building) –	566m <sup>2</sup>
South building (3 Buildings) –	958m <sup>2</sup>
East building (2 Buildings) –	1,074m <sup>2</sup>
<b>Total roof area for collection =</b>	<b>3,692m<sup>2</sup></b>



### 3.2 ROOF WATER USAGE

Our management plan has assessed the irrigation usage based upon the information below:

#### **Proposed end uses**

The proposed usage of the collected roof water is for irrigation of the following landscaped areas:

Lawn areas -	458m <sup>2</sup>	(drip irrigation feed from roof water reuse tanks)
Landscape Garden area -	1,994m <sup>2</sup>	(drip irrigation feed from roof water reuse tanks)
<b>Total landscaping -</b>	<b>2,452m<sup>2</sup></b>	

#### **Irrigation rate**

We anticipate that approximately 1L/m<sup>2</sup> of roof water will be required per day for irrigation of lawn and landscaped areas therefore a total of 2,452 L/day on average usage.

Note that roof water top up via the recycled water main may not be required if a rain event has commenced on this day and moisture content of the soil has been achieved.

### 3.3 ROOF WATER TANK MODELLING

JHA Engineers have used modelling software from the Tankulator program which uses Bureau of Meteorology (BOM) data<sup>4</sup> and historical records contained with the site from decades of rainfall data.

The modelling results have indicated that approximately 68,100L of roof water storage is required to meet the demand which could involve several tanks coupled together to achieve the overall volume.

The modelling indicates that a 68,100L tank system will be in overflow for approximately 43 days a year when the quantity of roof water harvested exceeds the available tank capacity. The rainwater tanks will, in times of long durations of rainfall, be full and overflow. We propose to make available this excess rain water for the use of SOPA at our southern boundary- which could be used to irrigate Linear park.

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<sup>4</sup> <http://www.bom.gov.au>





Figure 4 – Roof water harvesting results summary from Tankulator software

## 4. BASIX

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In accordance with all developments in NSW the BASIX<sup>5</sup> calculator will be used to implement energy analysis and minimum targets to be approved via local government.

The minimum water conservation targets our proposal will achieve are as follows:

- High efficiency tapware
- Low flow dual flush toilets
- Energy efficient hot water centralised systems
- Water meters for both potable and recycled water connection to all residential units

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<sup>5</sup> <https://www.basix.nsw.gov.au>

## 5. Conclusion

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This Water Cycle Management Plan has provided an overall philosophy for the collection, treatment and re-use of collected roof water for the landscape irrigation system, and the use of the SOPA WRAMS recycled water mains for all other non-potable uses for the proposed development.

The site will incorporate a roof water collection and treatment system that meets the requirements of Australian Drinking Water design guidelines for the irrigation system Class 'A' water.

Exact layouts and sizing for the roof water treatment system will be confirmed during detailed design.

For on-site detention calculation and sizing please refer to Civil engineer, stormwater management strategy report.

# Appendix 1 - Notice of Anticipated Requirements

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Case Number: **149820**

3 December 2015

MIRVAC PROJECTS PTY LTD  
c/-RMA INFRASTRUCTURE PTY LTD

**NOTICE OF ANTICIPATED REQUIREMENTS**  
for  
**SECTION 73 SUBDIVIDER/DEVELOPER COMPLIANCE CERTIFICATE**  
(Sydney Water Act 1994, Part 6, Division 9)  
**PENDING DEVELOPMENT CONSENT**

**Developer:** MIRVAC PROJECTS PTY LTD  
**Your reference:** W-10286  
**Development:** (Lot 22 DP787402), No. 2 Figtree Dr, Sydney Olympic Park  
**Development Description:** Mixed-use development comprising four residential flat buildings, a landscaped ground plane, a small retail / Commercial area, Basement parking, the construction of a New Access Road and a 5 Lot Stratum Subdivision to dedicate Public Road, Reserves and separate Commercial and Residential Tenancies  
**Council:** Auburn Council  
**Your application date:** 11 November 2015

Dear Applicant

Sydney Water has assessed your application for the anticipated requirements of a Section 73 Compliance Certificate (the Certificate) pending development consent for the subdivision shown above. Detailed information on your anticipated requirements is outlined below.

**You have until 3 December 2016 to meet those requirements and receive the Certificate. If you have not received the Certificate by then you will have to reapply (and pay another application fee) and Sydney Water will issue you with a new notice. We may have extra requirements and charges may change in the new notice.**

The Water Servicing Coordinator (Coordinator) will be your point of contact with Sydney Water. They can answer most questions you might have on our developer process and charges.

**This is not a final notice and Sydney Water is not liable for any actions you take as a result of this Notice. You do not have the authority to start construction of works.**

Once you receive final development consent you should submit a copy to Sydney Water. Provided that there have been no significant changes to the development, we will send you a Confirmation Letter.

If the development application has been subject to significant change then this anticipated requirements application will be terminated and you must submit a formal Section 73 application.

## What You Must Do To Get A Section 73 Certificate

### Summary:

This is a summary of Sydney Water's requirements. The detailed list begins on the next page.

You must do all of the following things:

1. Engage a Water Servicing Coordinator (Coordinator) before you sign the enclosed Agreement.
2. Sign both originals of the enclosed Agreement and give them to the Coordinator. You must do all the things that we ask you to do in that Agreement.
3. After you have signed the Agreement you then have to build the required sewer works at your own cost.
4. See Section 4 for any Ancillary Matters.
5. Have your building plans approved and stamped because what you are building may be over or near our pipes and we need to check your property building plans. Your Coordinator can tell you more about this and help with the approval.
6. Complete any special requirements from Section 6.

Sign the enclosed Undertaking for multi-level individual metering.

### Other things you need to do:

At the end of this Notice are some other things that you need to do. They are NOT a requirement to be met before the Certificate can issue but may well be a requirement in the future because of the impact of your subdivision on our assets. You must read them before you go any further.

## DETAILED REQUIREMENTS

### 1. Water Servicing Coordinator

**You must engage your current or another authorised Coordinator to manage the design and construction of works that you must provide, at your cost, to service your subdivision. Before you engage another Coordinator you must write and tell Sydney Water.**

For a list of authorised Coordinators, either visit [www.sydneywater.com.au](http://www.sydneywater.com.au) > Plumbing, building & developing > Developing > Providers > Lists or call **13 20 92**.

Coordinators will give you a quote or information about costs for services/works, including Sydney Water costs.

### 2. Developer Works Deed

**After you engage a Coordinator, you must engage other Developer Infrastructure Providers (Providers) to carry out, where needed, the design and construction of the works. They must all have the appropriate capability. Your Coordinator can assist you.**

You and your Providers will need to enter into an agreement with Sydney Water. To do this you need to sign and lodge **both originals** of the enclosed Developer Works Deed (Deed) with your nominated Coordinator. You will then need to work with your Coordinator to have the other Providers sign the Deed.

Before signing the Deed, each party must also read and understand the conditions of the agreement that are set out in the Developer Works Deed – Schedule 1: Standard Terms document. That document as well as information about it are available at [sydneywater.com.au](http://sydneywater.com.au) > Plumbing, building & developing > Developing > Developer deeds & standard terms

**The Deed and the Standard Terms set out for this development all parties' roles and responsibilities as well as other information.**

**You must do all the things that we ask you to do in the Deed.** This is because lots in your subdivision do not have sewer services and you must construct and pay for the following works extensions under this Deed to provide these services.

### 3. Drinking Water, Recycled Water and Sewer Works

#### 3.1 Drinking Water

Each lot in your Stratum subdivision must have a frontage to a water main that is the right size and can be used for connection.

**Sydney Water has assessed your application and found that:**

**The existing 150mm water main in Figtree Drive is available to serve the proposed Lots 5 & 6. The developer must comply with the standards for Dual Water Reticulation Systems talked about in section 3.2.1 below.**



- Proposed Lots 3 & 4 are shown as a Reserve Lot in the Development Plan provided. Therefore, Sydney Water will only make a requirement for this lot when an approval within the meaning of Section 69 of the *Water Board Act 1994* is obtained and an application for a Section 73 Certificate is made.
- Lot 2 is shown as a private road/public road in the Development plan. Because they do not need services, no servicing requirements have been made.
- The above requirements are based on information provided by your water Servicing Coordinator.

### 3.2 Recycled Water

Each lot in your stratum subdivision must have a frontage to a recycled water main that is the right size and can be used for connection.

**Sydney Water has assessed your application and found that:**

**The existing 150mm recycled water main in Figtree Drive is available to serve the proposed Lots 5 & 6. The developer must comply with the standards for Dual Water Reticulation Systems talked about in section 3.2.1 below.**

- Proposed Lots 3 & 4 are shown as a Reserve Lot in the Development Plan provided. Therefore, Sydney Water will only make a requirement for this lot when an approval within the meaning of Section 69 of the *Water Board Act 1994* is obtained and an application for a Section 73 Certificate is made.
- Lot 2 is shown as a private road/public road in the Development plan. Because they do not need services, no servicing requirements have been made.

#### 3.2.1 Sydney Water's Standards for Dual Water Reticulation

Your subdivision is in an area where both drinking and recycled water systems are available. The drinking and recycled water works required above must comply with the standards for Dual Water Reticulation Systems that are set down in the Water Supply Code of Australia (Sydney Water Edition) (the Code).

These standards require that service connections and property services be provided for both drinking and recycled water for each lot in the subdivision. The installation of these services must either be carried out or supervised by a licensed plumber. It must meet the:

- (a) Administrative requirements of the New South Wales Code of Practice for Plumbing and Drainage; and
- Technical requirements of the Dual Water Drawings Set within the Code.

- The above requirements are based on information provided by your water

Servicing Coordinator.

### 3.3 Sewer

Each lot in your stratum subdivision must have a sewer main that is the right size and can be used for connection. That sewer must also have a connection point within each lot's boundaries.

Sydney Water has assessed your application and found that:

- The wastewater main available for connection is the 225mm main traversing the property constructed under WN A89555. This wastewater main is planned to be adjusted under Case 147110WW. Therefore no requirements apply at this stage.
- The above requirements are based on information provided by your water Servicing Coordinator.
- The Sec 73 Certificate can only be issued when all sewer works is completed and taken over by Sydney Water within Case 147110.

## 4. Ancillary Matters

### 4.1 Flow Management and Isolation of Sydney Water's Asset.

Any works to be constructed with a connection/cut-in to Sydney Water's (wastewater, water and/or stormwater) assets must comply with Occupational Health and Safety and Environmental legislation you must talk to your coordinator about the timely submission to Sydney Water of a request for flow management and asset isolation requirements.

### 4.2 Asset Adjustments

After Sydney Water issues this Notice (and more detailed designs are available), Sydney Water may require that the water main/sewer main/stormwater located in the footway/your property be adjusted/deviated. If this happens, you will need to do this work as well as the extension we have detailed above at your cost. The work must meet the conditions of this Notice and you will need to complete it **before we can issue the Certificate**. Sydney Water will need to see the completed designs for the work and we will require you to lodge a security. The security will be refunded once the work is completed.

### 4.3 Entry onto neighbouring property

If you need to enter a neighbouring property, you must have the written permission of the relevant property owners and tenants. You must use Sydney Water's **Permission to Enter** form(s) for this. You can get copies of these forms from your Coordinator or the Sydney Water website. Your Coordinator can also negotiate on your behalf. Please make sure that you address all the items on the form(s) including payment of compensation and whether there are other ways of designing and constructing that could avoid or reduce their impacts. You will be responsible for all costs of mediation involved in resolving any disputes. Please

allow enough time for entry issues to be resolved.

#### 4.4 Costs

Construction of these works will require you to pay project management, survey, design and construction costs **directly to your providers**. Additional costs payable to Sydney Water may include:

- design and construction audit fees;
- contract administration, Operations Area Charge & Customer Redress prior to project finalisation; and
- creation or alteration of easements etc.

Note: Payment for any Goods and Services (including Customer Redress) provided by Sydney Water will be required prior to the issue of the Section 73 Certificate or release of the Bank Guarantee or Cash Bond.

Your Coordinator can tell you about these costs.

#### 5. Stamping and Approval of your Building Plans

You must have your building plans stamped and approved **before the Certificate can be issued**. In any case, building construction work **MUST NOT** commence until Sydney Water has granted approval. Approval is needed because construction/building works may affect Sydney Water's assets (e.g. water and sewer mains).

Your Coordinator can tell you about the approval process including:

- Your provision, if required, of a "Services Protection Report" (also known as a "pegout"). This is needed to check whether the building and engineering plans show accurately where Sydney Water's assets are located in relation to your proposed building work. Your Coordinator will then either approve the plans or make requirements to protect those assets before approving the plans;
- Possible requirements;
- Costs; and
- Timeframes.

You can also find information about this process (including technical specifications) if you either:

- Visit [www.sydneywater.com.au](http://www.sydneywater.com.au) > Building Developing and Plumbing > Building and Renovating. Here you can find Sydney Water's *Guidelines for Building Over/Adjacent to Sydney Water Assets*; or
- Call 13 20 92.

#### Notes:

- The Certificate will not be issued until the plans have been approved and, if

required, Sydney Water's assets are altered or deviated;

- You can only remove, deviate or replace any of Sydney Water's pipes using temporary pipework if you have written approval from Sydney Water's Development Operations Branch. You must engage your Coordinator to arrange this approval; and
- You must obtain our written approval before you do any work on Sydney Water's systems. Sydney Water will take action to have work stopped on the site if you do not have that approval. We will apply Section 44 of the *Sydney Water Act 1994*.

#### 6. Special Requirements

- **The Final Development Consent**

This application is based on the development and consent shown on Page 1. You must give us the final Development Consent before we issue the Certificate so we can make sure that the subdivision is the same.

If the subdivision is the same and all the requirements of this Notice have been met, we will issue the Certificate. If the subdivision is NOT the same you must reapply (and pay another application fee) and we will issue another Notice. The requirements and charges may change in that Notice.

- **Multi-level individual metering requirements**

Your development must either allow for or provide individual metering. This means that you must:

1. comply at all times and in all respects with the requirements of Sydney Water's "*Multi-level Individual Metering Guide*" (version 6 dated 1 July 2015);
2. provide and install plumbing and space for individual metering in accordance with Sydney Water's "*Multi-level Individual Metering Guide*";
3. if and when you implement a strata/ stratum plan (or strata/ stratum subdivide) you must:
  - a. engage an Accredited Metering Supplier ("**AMS**") to provide individual metering in accordance with the "*Multi-level Individual Metering Guide*" and meet the cost of the meters and metering system;
  - b. transfer the meters and metering system to Sydney Water once the Testing Certificate has been issued by Sydney Water to the AMS and the AMS has confirmed that payment for the meters and metering system has been paid in full.

**Before the Section 73 Certificate can be issued, you must sign the attached undertaking to show that you understand and accept these metering requirements and associated costs.**

Visit [www.sydneywater.com.au](http://www.sydneywater.com.au) > Plumbing, Building & Developing > Plumbing > Meters & metered standpipes to see the *Multi-level individual metering guide* and find out more.

**OTHER THINGS YOU NEED TO DO:** Not required for your Section 73 Certificate

Shown below are other things you need to do that are NOT a requirement for the Certificate. They may well be a requirement of Sydney Water in the future because of the impact of your subdivision on our assets. You must read them before you go any further.

**Disused Sewerage Service Sealing**

Please do not forget that you must pay to disconnect all disused private sewerage services and seal them at the point of connection to a Sydney Water sewer main. This work must meet Sydney Water's standards in the Plumbing Code of Australia (the Code) and be done by a licensed drainer. The licensed drainer must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

**Soffit Requirements**

Please be aware that floor levels must be able to meet Sydney Water's soffit requirements for property connection and drainage.

**Requirements for Business Customers for Commercial and Industrial Property Developments**

If this property is to be developed for Industrial or Commercial operations, it may need to meet the following requirements:

**Trade Wastewater Requirements**

If this development is going to generate trade wastewater, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. You must wait for approval of this permit before any business activities can commence.

The permit application should be emailed to Sydney Water's Business Customer Services at [businesscustomers@sydneywater.com.au](mailto:businesscustomers@sydneywater.com.au)

It is illegal to discharge Trade Wastewater into the Sydney Water sewerage system without permission.

A **Boundary Trap** is required for all developments that discharge trade wastewater where arrestors and special units are installed for trade wastewater pre-treatment.

If the property development is for Industrial operations, the wastewater may discharge into a sewerage area that is subject to wastewater reuse. Find out from Business Customer Services if this is applicable to your development.

### Backflow Prevention Requirements

Backflow is when there is unintentional flow of water in the wrong direction from a potentially polluted source into the drinking water supply.

All properties connected to Sydney Water's supply must install a testable **Backflow Prevention Containment Device** appropriate to the property's hazard rating. Property with a high or medium hazard rating must have the backflow prevention containment device tested annually. Properties identified as having a low hazard rating must install a non-testable device, as a minimum.

Separate hydrant and sprinkler fire services on non-residential properties, require the installation of a testable double check detector assembly. The device is to be located at the boundary of the property.

Before you install a backflow prevention device:

1. Get your hydraulic consultant or plumber to check the available water pressure versus the property's required pressure and flow requirements.
2. Conduct a site assessment to confirm the hazard rating of the property and its services. Contact PIAS at NSW Fair Trading on **1300 889 099**.

For installation you will need to engage a licensed plumber with backflow accreditation who can be found on the Sydney Water website:

<http://www.sydneywater.com.au/Plumbing/BackflowPrevention/>

### Water Efficiency Recommendations

Water is our most precious resource and every customer can play a role in its conservation. By working together with Sydney Water, business customers are able to reduce their water consumption. This will help your business save money, improve productivity and protect the environment.

Some water efficiency measures that can be easily implemented in your business are:

- Install water efficiency fixtures to help increase your water efficiency, refer to WELS (Water Efficiency Labelling and Standards (WELS) Scheme, <http://www.waterrating.gov.au/>
- Consider installing rainwater tanks to capture rainwater runoff, and reusing it, where cost effective. Refer to <http://www.sydneywater.com.au/Water4Life/InYourBusiness/RWTCalculator.cfm>
- Install water-monitoring devices on your meter to identify water usage patterns and leaks.
- Develop a water efficiency plan for your business.

It is cheaper to install water efficiency appliances while you are developing than retrofitting them later.

### Contingency Plan Recommendations

Under Sydney Water's [customer contract](#) Sydney Water aims to provide Business Customers



with a continuous supply of clean water at a minimum pressure of 15 meters head at the main tap. This is equivalent to 146.8kpa or 21.29psi to meet reasonable business usage needs.

Sometimes Sydney Water may need to interrupt, postpone or limit the supply of water services to your property for maintenance or other reasons. These interruptions can be planned or unplanned.

Water supply is critical to some businesses and Sydney Water will treat vulnerable customers, such as hospitals, as a high priority.

Have you thought about a contingency plan for your business? Your Business Customer Representative will help you to develop a plan that is tailored to your business and minimises productivity losses in the event of a water service disruption.

For further information please visit the Sydney Water website at: <http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/> or contact Business Customer Services on 1300 985 227 or [businesscustomers@sydneywater.com.au](mailto:businesscustomers@sydneywater.com.au)

### Fire Fighting

Your firefighting service must be drawn from the recycled water system. Definition of fire fighting systems is the responsibility of the developer and is not part of the Section 73 process. It is recommended that a consultant should advise the developer regarding the fire fighting flow of the subdivision and the ability of Sydney Water's system to provide that flow in an emergency. Sydney Water's Operating Licence directs that Sydney Water's mains are only required to provide domestic supply at a minimum pressure of 15 m head.

A report supplying modelled pressures called the Statement of Available pressure can be purchased through any Quick Check agent and may be of some assistance when defining the fire fighting system. The Statement of Available pressure, may advise flow limits that relate to system capacity or diameter of the main and pressure limits according to pressure management initiatives. If mains are required for fire fighting purposes, the mains shall be arranged through the water main extension process and not the Section 73 process.

### Large Water Service Connections (Dual Water)

A drinking water main and a recycled water main are available to serve your subdivision. The size of your subdivision means that you will need dual water connections larger than the standard domestic 20 mm size.

To get approval for your connection, you will need to lodge an application with a Quick Check Agent. You, or your hydraulic consultant, may need to supply the following:

- A plan of the hydraulic layout;
- A list of all the fixtures/fittings within the property;
- A copy of the fireflow pressure inquiry issued by Sydney Water;
- A pump application form (if a pump is required);
- All pump details (if a pump is required).

You will have to pay an application fee.



The service connection will need to meet with:

Administrative requirements of the Plumbing Code of Australia; and  
Technical requirements of the Dual Water Drawings Set within the Code.

Sydney Water does not consider whether a water main is adequate for fire fighting purposes for your subdivision. We cannot guarantee that this water supply will meet your Council's fire fighting requirements. The Council and your hydraulic consultant can help.

#### **Disused Water Service Sealing**

You must pay to disconnect all disused private water services and seal them at the point of connection to a Sydney Water water main. This work must meet Sydney Water's standards in the Plumbing Code of Australia (the Code) and be done by a licensed plumber. The licensed plumber must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

#### **Other fees and requirements**

The requirements in this Notice relate to your Certificate application only. Sydney Water may be involved with other aspects of your subdivision and there may be other fees or requirements. These include:

- plumbing and drainage inspection costs;
- the installation of backflow prevention devices;
- trade waste requirements;
- large water connections and
  - council fire fighting requirements. (It will help you to know what the fire fighting requirements are for your subdivision as soon as possible. Your hydraulic consultant can help you here.)

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**END OF NOTICE**