

|            |  |      |  |
|------------|--|------|--|
| Job number |  | Date |  |
|------------|--|------|--|

**Rain Water**

**Grey Water**

**Irrigation**

**Turf and Soils**

Design Check list

Earth & Water to complete shaded section

Client to complete other sections

|                   |  |
|-------------------|--|
| Builder           |  |
| Site Contact Name |  |
| Phone Number      |  |
| Email             |  |
| Mailing Address   |  |

|                 |  |
|-----------------|--|
| Client Name     |  |
| Phone Numbers   |  |
| Email           |  |
| Site Address    |  |
| Mailing Address |  |

**Irrigation System**

|  |  |
|--|--|
| Irrigation System  | new / retrofit                         |
| Irrigate Garden Beds   | yes / no                               |
| Irrigate Turf  | yes / no    Is the turf new / existing |
| Pots Irrigation – separate valve and pipe                                      | yes / no                               |
| Verge  | turf / natives                         |
| Irrigation Controller  | new / exist. Location.....             |
| Does the landscape drawing show the main features such as paving, shed, pool ? |  |
| Sleeves  | required / existing                    |

|                           |                                    |
|---------------------------|------------------------------------|
| Water source and location | scheme / bore / grey water / other |
| Flow rate and Pressure    |                                    |
| Quality                   |                                    |

Maximum Water Corporation Rebate for Irrigation System \$ 300  
 Maximum Water Corporation Rebate for a Bore hole and Pump \$ 300

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web site [www.earthandwater.com.au](http://www.earthandwater.com.au)

## Grey Water System

|  |          |
|--|----------|
| Grey Water Sources – laundry / shower  |          |
| Supply CAD Drawing of home – Showing location of home on the block, bedrooms, showers, laundry, basins etc |          |
| Mark off proposed location of Grey Water Tank  |          |
| Number of bedrooms   |          |
| Type of Grey Water system required   |          |
| Define Grey Water irrigated areas on landscape plan if available   |          |
| Holiday Pack / Summer Top up source - recommended  | yes / no |

Minimum irrigated areas as required by Department of Health

The Department of Health require the drip line irrigation to be set back  
300mm off Pathways / Boundaries and 500mm off Buildings

| Number of Bedrooms | Laundry Washing Machine Only<br>Minimum required Irrigated garden / turf area | Reuse of All Grey Water<br>Minimum required Irrigated area |
|--------------------|---|--|
| 2                  | 15 sqm  | 28 sqm   |
| 3                  | 17 sqm  | 38 sqm   |
| 4                  | 21 sqm  | 47 sqm   |
| 5                  | 25 sqm  | 56 sqm   |

Minimum underground footprint size for Grey Water Sumps

| Type  | Basic Design  | Footprint                  |
|---|---|----------------------------|
| <b>best option</b><br>Double Sedimentation tank | Two Concrete Tanks<br>One 1,200mm x 1,200mm deep sedimentation tank followed by a 900mm x 900mm deep tank with a pump. Approx cost \$ 6,500   | 3,600mm<br>x<br>4,500mm    |
| <b>frequent service option</b><br>Single tank   | One Polyethylene sump with a pump<br>900mm x 900mm x 500mm deep<br>Approx cost \$ 4,500   | 1,400mm<br>x<br>1,400mm    |
| <b>Laundry only cheapest</b><br>G Flow          | 500mm long x 250mm wide x 300mm deep plastic grey-water tank and filter is simply mounted outside on the laundry wall<br>Approx cost \$ 1,500 | 1,200mm<br>above<br>ground |

Maximum Water Corporation Rebate for Grey Water \$ 500

Council Fees for approval \$ 202.00  
Rain Water System

|   |                               |
|---|-------------------------------|
| Rain water tank                           | above / below ground          |
| Preferred size - litres                   |                               |
| Dimensions and location of the water tank |                               |
| Location of the Water Switch / Rain Bank  |                               |
| Is scheme water back up required          | yes / no                      |
| Single or Double story home               | single / double               |
| What does the rain water supply           | toilet, washing machine,..... |

Basic design, cost and minimum footprint size for Rain Water Tanks

| Type   | Basic Design and Cost  |                               |
|--|--|-------------------------------|
|  | Additional cost for delivery, outlets, fittings and installation   | Installation Footprint        |
| <i>Above Ground Slimline</i><br>3,000 litre            | 760mm wide x 2000mm high x 2300mm long<br><br>Poly Tank only - \$ 1,800  | 800mm<br>x<br>2600mm          |
| <i>Above Ground Slimline</i><br>1,500 litre            | 800mm wide x 1860mm high x 1400mm long<br><br>Poly Tank only - \$ 700  | 900mm<br>x<br>1700mm          |
| <i>Above Ground Round</i><br>4,500 litre               | 2,350mm diameter x 2300mm high<br><br>Poly Tank only - \$ 1,000  | 2600mm<br>x<br>2600mm         |
| <i>Above Ground Round</i><br>4,500 litre               | 1,880mm diameter x 1630mm high<br><br>Galvanised Tank only - \$ 1,100  | 2100mm<br>x<br>2100mm         |
| <i>Below Ground Oblong</i><br>2,000 litre              | 800mm wide x 2200mm high x 2200mm long<br><br>Poly Tank only - \$ 1,300  | 4000mm<br>x<br>4000mm         |
| <i>Below Ground Concrete Round</i><br>From 2,000 litre | Sizes vary from 2,000mm diameter<br>And 2,000mm deep<br><br>Heavy duty concrete tank systems cost from<br>\$ 9,000 upwards | From<br>4000mm<br>x<br>4000mm |

Pump and Rain Bank ( Divertor ) for the rain water system – Additional cost of \$ 1,300

Maximum Water Corporation Rebate for Rain Water tank System \$ 600

## Landscaping – Soils and Turf

|   |          |
|---|----------|
| Remove and replace the old soils with improved soils and composts | yes / no |
| Remove the old turf? New turf type                                |          |
| Mulch required  | yes / no |

Points / Costs to be considered and discussed with your Builder or Earth & Water

|              |   |
|--------------|---|
| Timing       | When should the system be installed   |
|              | When will driveways and paved footpaths go down   |
|              | Is there access for the tank once the walls are up  |
|              | Make the sleeves and pre-lays are installed prior to paving etc   |
| Electricals  | Who is quoting for this work  |
|              | When should the electrical work be done   |
|              | Consider locations of the Irrigation controller, Grey Water Alarm etc   |
| All Plumbing | Who is quoting for this work  |
|              | When should the plumbing work be done   |
|              | Make sure the second pipe ( grey water ) is plumbed at the build stage  |
|              | Allow for a reflux valve or disconnected gulley to avoid back flow of black water to the grey water   |
|              | Ensure adequate underground space is left for the grey water system and pipes.<br>Make sure the plumbers, builders etc have a copy of our grey water plan |
| Rain Water   | Who is installing the down pipes to the rain water tanks  |
|              | Have you allowed for an overflow soak well or pit   |
|              | Who is making the rain water tank pad or excavating the hole  |
|              | What is happening to the storm water run-off from the paving / driveway   |
|              | Which plumber is connecting the scheme water to the divertor and back to the house  |
| Approvals    | Get all Council Approvals and other approvals prior to ordering any equipment etc and definitely prior to installation and use.                           |

### Design and Consultancy

To enable us to scope and cost up your system Earth & Water need to create a design after meeting with you to establish exactly what you want.

In this meeting we will check information such as building setbacks, irrigated areas, discuss your ideas on say what you want to do with your rain water etc. The meeting for residential systems usually takes about an hour. If it is a straight forward system and your plans are accurate and we possibly do not have to visit the site then we can meet in our offices as it saves us time and you money.

As a result of consultation and development of our AUTOCAD design we can THEN cost up your proposal. The costs are itemised and broken up into descriptive sections for you to make an informed decision.

|              |                               |                 |
|--------------|-------------------------------|-----------------|
| Hourly Rates | Irrigation consult and design | \$ 112.50 + GST |
|              | Water Treatment consult       | \$ 150.00 + GST |

Generally most residential home design costs as follows:

|  |
|--|
| Drip Irrigation system - \$ 250.00                       |
| Above Ground Rain Water system - \$ 250.00               |
| Below Ground Rain Water system - \$ 350.00               |
| Grey Water system and Drip Irrigation System - \$ 350.00 |