

RainBank

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Davey Water Products









The Challenge

To alleviate water supply limitations in major metropolitan cities:

- Without ground water
- Where desalination is not an option
- Provide a sustainable household solution
- Mitigate storm water inrush

Australia has adopted rainwater harvesting as the easiest option, behind public education and water restrictions

For example:

A 530 gallon tank connected to 1000sq feet of roof area, plumbed to toilets and laundry can save 40% or 40,000 gallons of water per year.

Rainwater tanks have always been part of the rural landscape

- 11% of all Australians drink rainwater
- 3% depend 100% on rainwater



Basic system

- Rainwater into a tank
- Pump to pressurize it



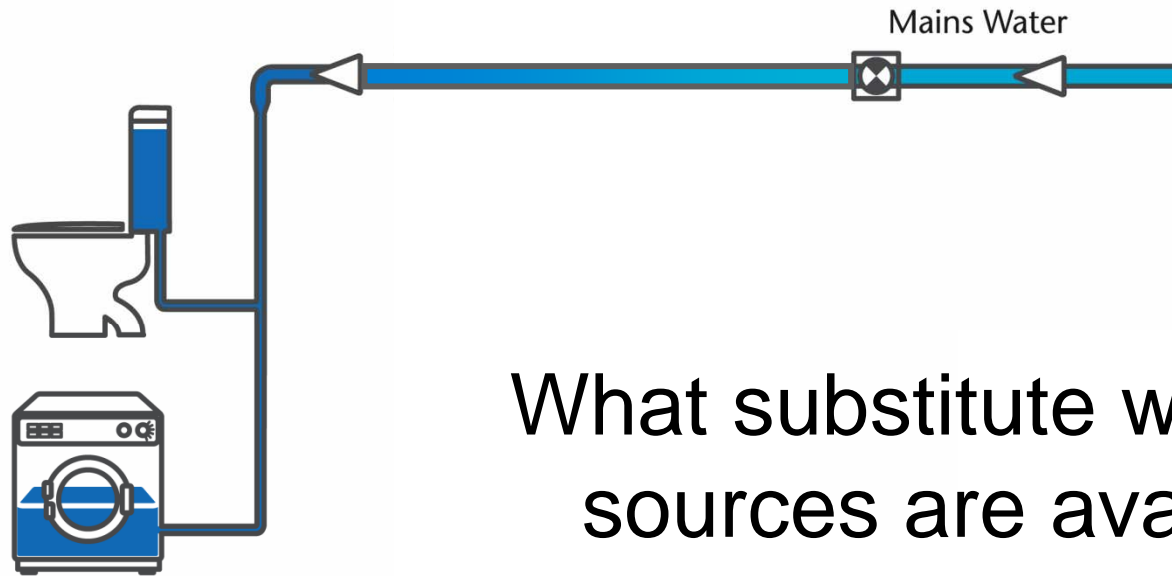
Basic system

- Targeted at garden watering
 - Requires very large tank
- Not global – micro approach
 - Not effective in homes
- Estimated utilisation <28%
- Estimated water saving <9%

New metro tanks

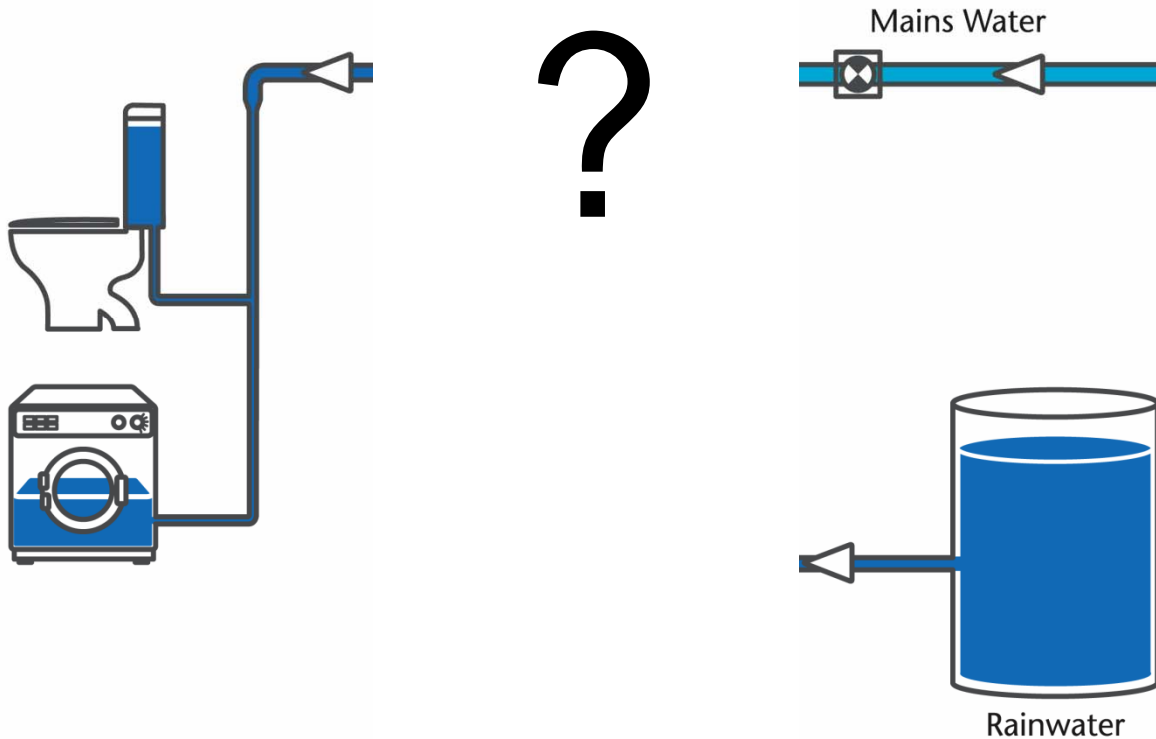
- Had to be smaller due to space
- No longer supply 100% of water
- Needed to have mains water backup
- Consumers had little experience with tanks or pumps

Standard metro plumbing

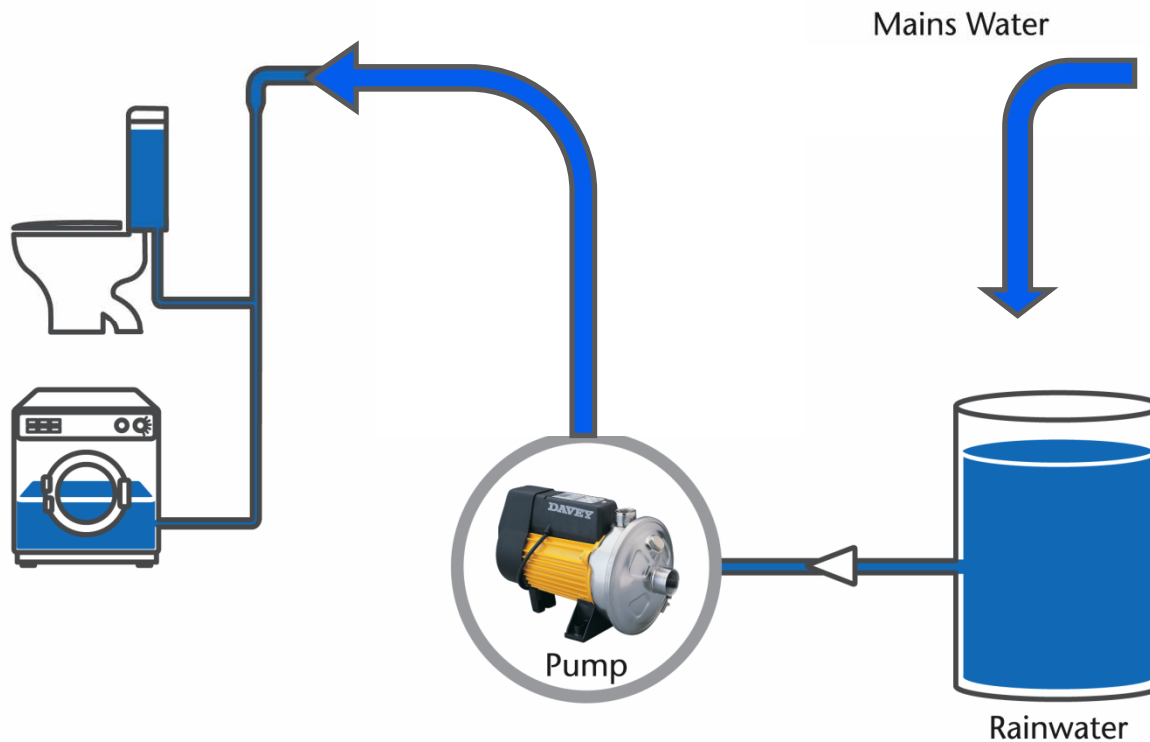


What substitute water sources are available?

How do you incorporate rainwater?



Traditional Air - Gap

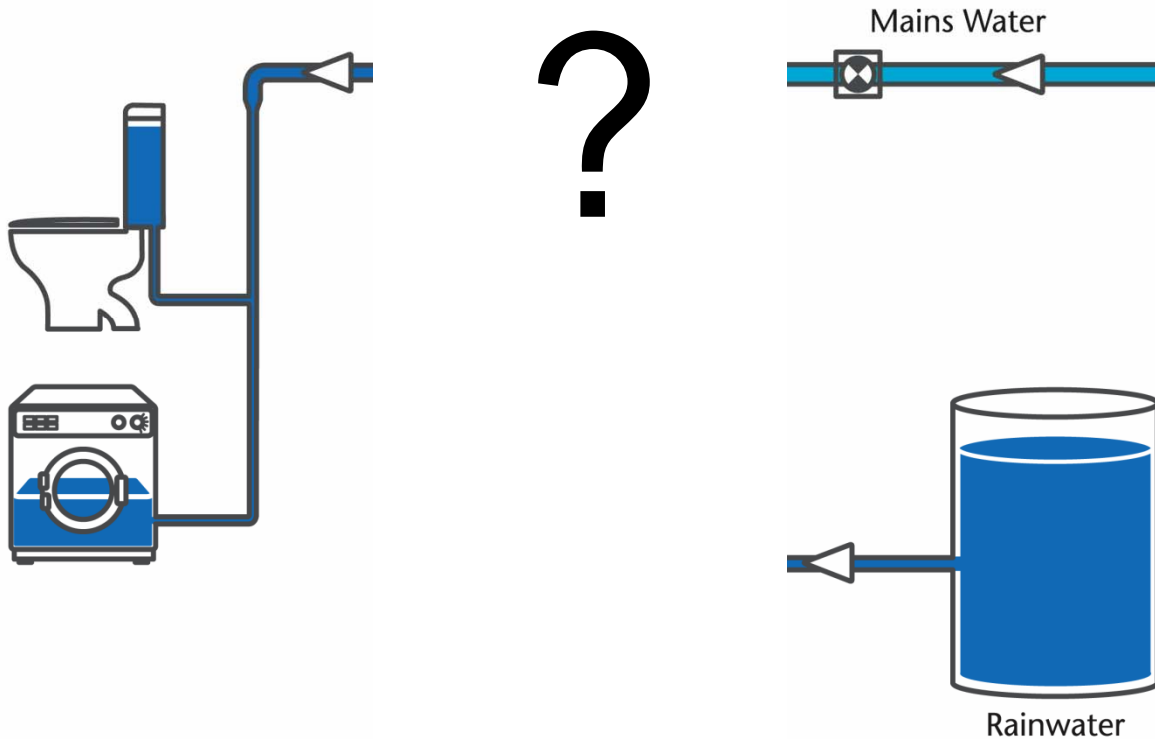


Patent pending on RainBank®

Air - Gap

- Pump is a critical part of the system
- Energy is wasted as all water is depressurized
- Won't work if electricity is not available
- Won't allow full capacity of tank to be used
- Can be noisy and create water spray

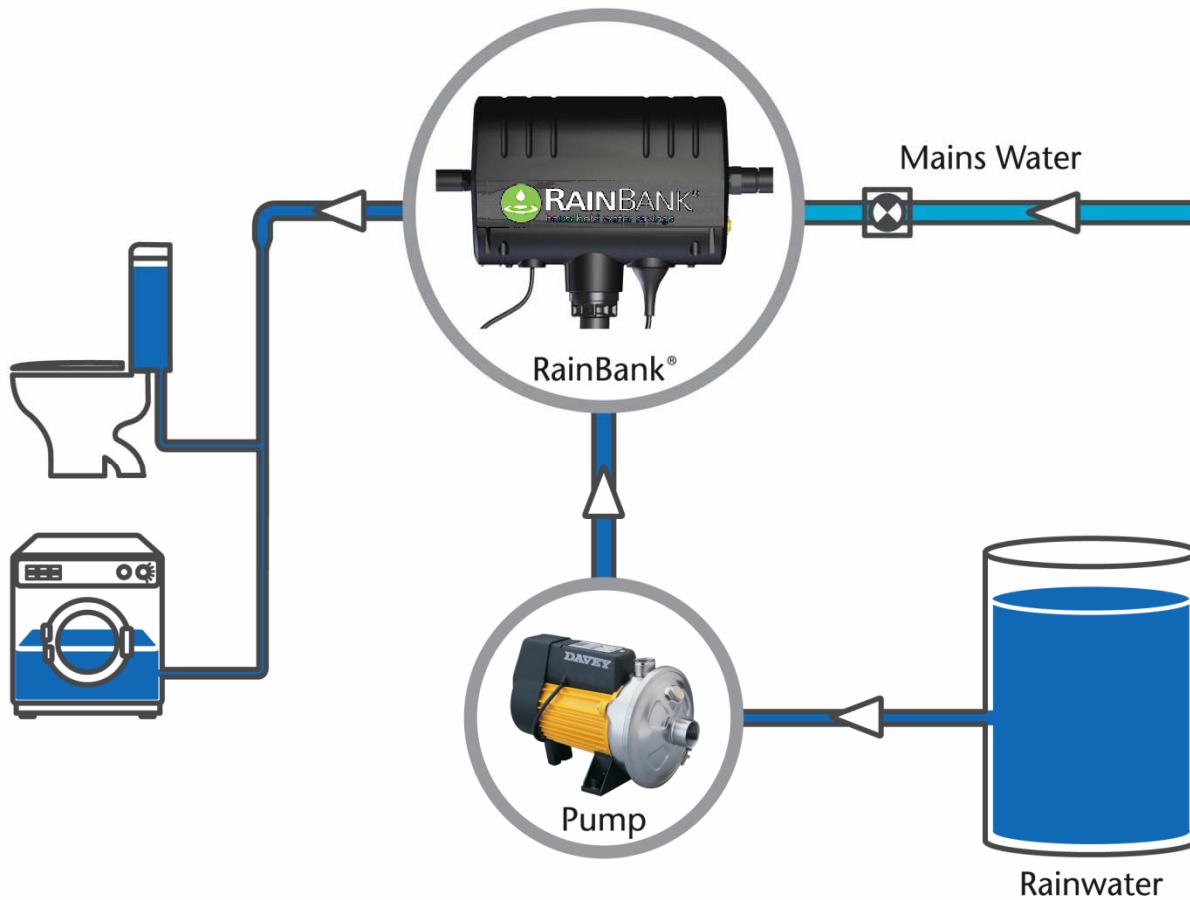
How else could you incorporate rainwater



RainBank®

household water savings

A unique solution to
rainwater recovery and
usage.



Patent pending on RainBank®



DO NOT
REPLACE



RAINBANK[®]
household water savings

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RainBank

- World first direct interconnection device = no air gap
- Rainwater as priority with:
- Seamless mains backup
- Does not re-pump all water saving energy
- Patented

RainBank

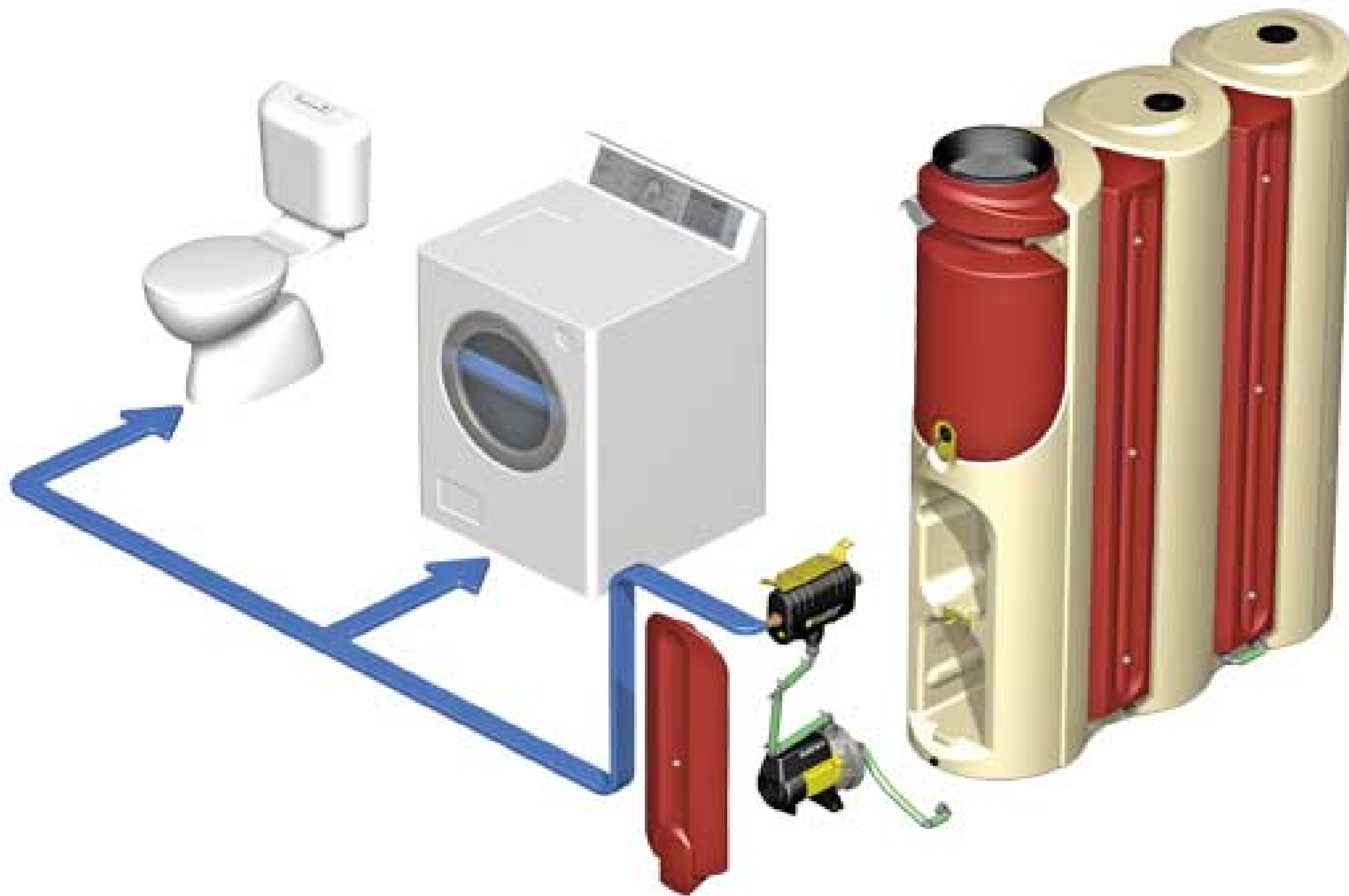
- Works when there is:
 - No Pump
 - No Rain water
 - No Power
 - No mains water

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Typical Installations







Backflow?

- Technical Solutions – Plumbing Industry Commission:
 - 5: Cold Water Plumbing
- AS3500 permits rainwater tank connection with suitable backflow valve
 - Low hazard = approved non-testable device.

Legislative actions

- Get advice from plumbing officials
- Draft new Australian Standards – similar to IAPMO
- Have RainBank approved to these standards - NSF
- Lobby to have incentives for adoption
- Introduce to plumber inspectors



Introduction actions

- Form relationships with plumbing organisations
- Write training programs
- Introduce to retailers
- Begin to train the trainers – apprentices

Water savings

- Typically 40% of a homes water
- **506,880,000** g / year
- **15,056,818,000** Us gallons cumulative
- Or an additional 1% of Melbourne's entire water storage

Finalist in GreenPlumbers Water efficient product of the year



GreenPlumbers®
REUSE / RECYCLE WATER

Winner in Standards Australia Design Awards



Winner in Save Water! New Product Awards

savewater!.com.au

Safety?

- First flush diverters can reduce possible contaminants
- RainBank for non-potable applications
 - Requires no treatment or extra filtration
- RainBank for potable applications
 - Requires treatment &/or extra filtration



Commercial Installations



DEPEND ON
DAVEY
WATER PRODUCTS

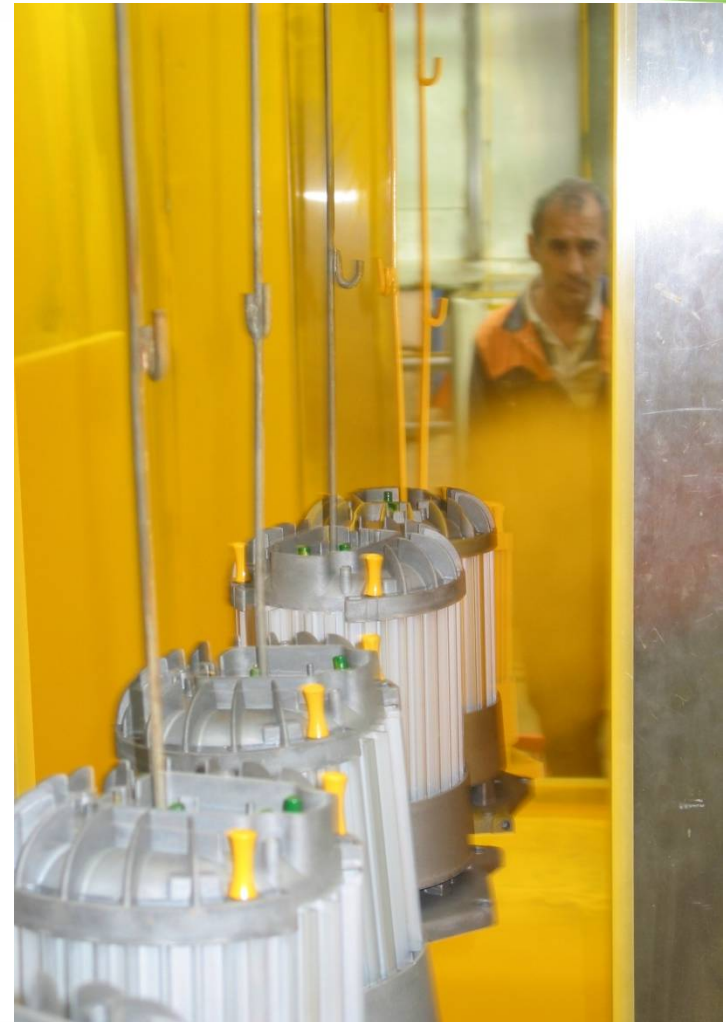
TANKWORLD
1800 66 89 70

TANK

TANK

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Water savings

- 792,000 US gallons / year
- Providing close to 100% of our water requirements

Key Components

- Approved and stamped dual check backflow device
 - Installed with approvals visible
- Pressure reducing valve
 - Set at 30 PSI
- Level switch
 - To stop the pump if rainwater level is low
 - Low voltage for safety

Key Components (cont.)

- Flow switch
 - To start the pump when flow is detected
- Pump check valve
 - To stop mains water flowing into the rainwater tank
 - Rated at 145 PSI
- Control Circuit – proven design

Current options:

Not seamless

Not truly 'green'

Maintenance required

Not unique

Air gap required

RainBank® is:

Seamless

Convenient

Very low maintenance

Patented

No air gap required

RainBank® is:

Truly 'green'

Less pump run time

No pump cycling

No re-pumping mains water

Auto mains back-up

Loss of Prime protected

Support Material

New corporate image



Support Material

Ad examples:



Cherish the resource...

And manage it wisely!

Replace up to 40% of your household water usage by installing RainBank and save on costly supply charges and a valuable resource.

RainBank is a water-saving device that captures rainwater, which is then stored in a tank and used for watering lawns, plants, and other outdoor uses. It can be installed on any roof and is easy to install. It is also a great way to save money on your water bill. For more information, visit www.rainbank.com.

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**Cherish the resource
And manage it wisely!**

RAINBANK HOUSEHOLD WATER SAVINGS

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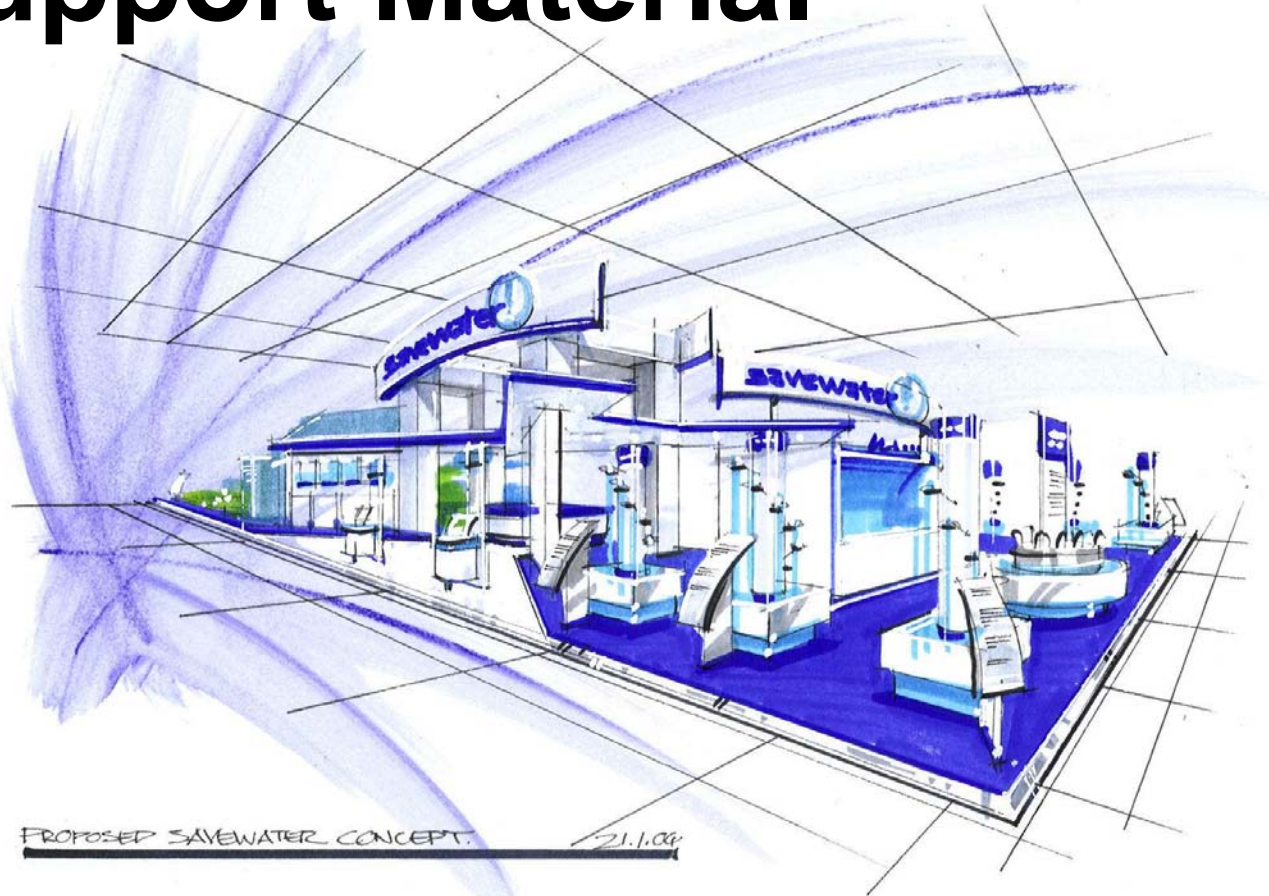
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Support Material

Public
Exhibitions





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