

F.A.Q.



MATERIALS

CONTACTS

LANDSCAPING

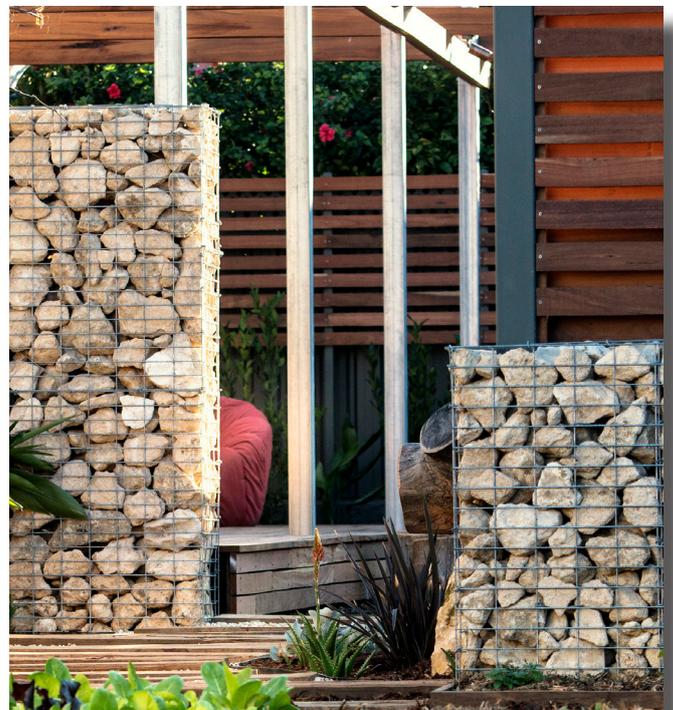
JOSH IS WELL KNOWN FOR HIS LOVE OF GARDENING AND COMMITMENT TO DEMONSTRATING HOW LANDSCAPING CAN BE USED TO IMPROVE THE SUSTAINABILITY AND LIVEABILITY OF OUR HOMES AND URBAN ENVIRONMENTS. HE RECKONS THIS LATEST GARDEN IS HIS BEST EFFORT YET.

We have prepared these frequently asked questions to compliment Episode 8 (Landscape Special) of the Josh's House on-line video series, and the associated landscape and irrigation plans. We hope they answer some of your burning questions!

WHAT ARE GABION WALLS AND HOW ARE THEY CONSTRUCTED?

Gabion walls are a simple, cost effective solution to constructing walls (including retaining walls) or screens, made from a welded mesh cage filled with rocks or rubble. They were traditionally used in civil engineering projects to stabilize slopes against erosion, but are now popular features in both commercial and residential landscaping.

Josh's House incorporated several limestone rubble filled gabion walls as repeating hard landscape features, creating items such as letterboxes, screening and seating. A hot dipped galvanised or 'Galfan' 100 x 50mm mesh with 4mm diameter wire was used and fitted together with ring fasteners. Wire cross braces were also used. Gabion wall mesh is available in various shapes and sizes with



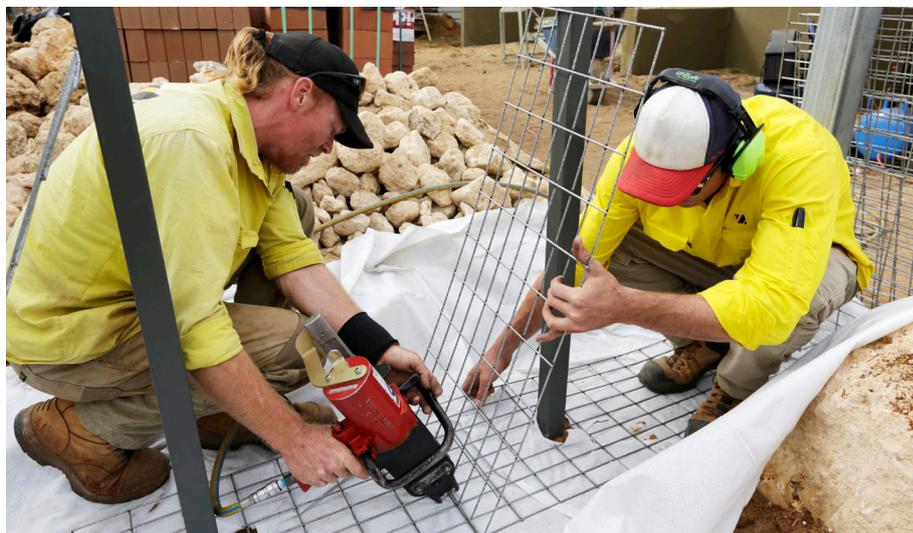
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different types of wire diameters, mesh openings, coating types and cage sizes to suit the application.

It is important to ensure that the foundations of these gabion walls are correctly engineered if they are to be used for retaining structures or high walls.

Gabion wall supplier: Global Synthetics
www.globalsynthetics.com.au



WHAT IS HYDROZONING AND HOW CAN IT SAVE WATER?

Hydrozoning involves grouping plants based on their common water and management requirements. In this way, various hydrozones can be serviced by different irrigation stations, and with different water sources, so they can be supplied with the appropriate amount of water of a suitable quality. The landscaping at Josh's House includes the following hydrozones which have very different water requirements:



- Hardy perennial plantings: Irrigated with greywater using sub-strata dripline. (Supplementary localised irrigation is applied to fruit trees within this zone using spray stakes on a dedicated bore station).
- Turf: Irrigated with bore water using rotary sprinklers.
- Vegetable Garden: Irrigated with bore water, using substrata surface dripline.
- Fruit Trees: Irrigated with bore water using substrata surface dripline.
- Advanced Trees - Irrigated with bore water, using spray stakes on a dedicated station.
- Propagation area: Irrigated with bore water using overhead nursery sprinklers.
- Native plantings: Irrigated with bore water for establishment only using substrata surface dripline.

For more detail on the hydrozones download our Irrigation Plans.

Irrigation system installer: Total Eden
www.totaleden.com.au

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IS HAVING A BORE SUSTAINABLE?

In many parts of the Perth Swan Coastal Plain, groundwater from the superficial (shallow) aquifer is easily accessible and is generally of suitable quality for garden irrigation. This groundwater is recharged by winter rainfall and provided that extraction doesn't exceed infiltration, it can be managed in a sustainable way.

Clearly there are groundwater sensitive areas across the Swan Coastal Plain where bores aren't appropriate, or have been historically overused – the WA Department of Water's Ground Water Atlas is a useful resource to assist in determining where bores are likely to be suitable - www.water.wa.gov.au/idelve/gwa/

In Episode 7 (Water), Josh outlined how bore water is being used in the project in the context of water sensitive urban design. Importantly, at Josh's House, bore water is being used in conjunction with other alternative supplies (i.e. rainwater and greywater), and it provides an appropriate fit-for-purpose water source for local food production as opposed to relying on constrained scheme water.



WHAT OTHER WATER SENSITIVE FEATURES HAVE BEEN CONSIDERED?

In addition to careful hydrozoning, efficient irrigation and the use of alternate water sources at Josh's House, we've also incorporated a broad range of water sensitive practices into the design and building of the landscape.

Firstly, planted areas requiring irrigation are evenly balanced with areas of decking, gravel and mulch pathways that don't need water. Importantly, these areas are shaded so as not to create hot spaces and are bordered by plantings to create a perception of 'lushness'.

The majority of planted areas contain low water use plants that require minimal irrigation once established. The turf selected is also a new low water use variety called Discovery Couch, which is reported to be significantly more drought resistant and less invasive than common couch grass (we'll keep you posted on that one!).

Soil conditioners were used in all garden beds to improve the water holding capacity of the sandy soil and water efficient mulch was generously applied throughout to further improve moisture retention. Whilst insulating the plant, mulch also helps reduce the evaporation thus reducing the amount of water required for these garden areas. In most areas, coarse pine bark mulch with irregular particle sizes was used as it allows rain and air to pass through and it is less likely to blow away. Pine bark mulch is also long lasting.

Lupin mulch has been applied to the productive areas, including the vegetable beds and fruit trees where it is an excellent source of organic matter for building up soil and providing nutrients for hungry plants. Lupin mulch breaks down quickly so needs to be topped up regularly and is best for protected areas.

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A locally made rock mineral mix was also used, along with pelletised poultry manure as an organic fertiliser. Liquid kelp was also applied to all plantings to help plants establish strong root systems and encourage soil microbial activity. When applied during the summer, liquid kelp will also help to reduce the occurrence of non-wetting soil. On-going fertilising of the productive garden beds will also include regular applications of liquid fish emulsion.



Turf supplier: Green Acres Turf Group
www.greenacresturfgroup.com.au

Soil conditioner and coarse mulch supplier: Amazon
www.amazonsoils.com.au

Lupin mulch and pig manure compost supplier: Dsatco
www.dsatco.com

Rock mineral mix supplier: Eco Growth
www.ecogrowth.com.au

Liquid kelp and fish emulsion supplier: Seasol
www.seasol.com.au

WHAT LOCAL FOOD PRODUCTION SYSTEMS HAVE BEEN INCORPORATED?

As a keen gardener, Josh wanted to have a large productive garden with a propagation area incorporating a potting bench and nursery. To accommodate these within the family friendly garden, these features were located between the two houses to allow shared access from both properties. A chicken run will also be built in this area as well as a series of compost bays.

A wide variety of fruit trees and vines have been planted in both gardens including subtropical species like guava, banana, pawpaw and passion fruit, as well as a range of deciduous stone fruit trees along the driveway with a companion plant understory for attracting beneficial pollinating and predatory insects. Grape vines will be trained over the pergolas to provide welcome summer shade.

Herbs such as thyme, oregano, sage, rosemary and mint were incorporated throughout both gardens not only to soften hard edges and create a sensory experience for the children, but as an accessible source of organic herbs for the kitchen. Over time, Josh will collect and propagate all sorts of interesting food plants and add these to the garden.

For a full list of the plants included, download the Landscape Plans.

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WHAT SHADING STRATEGIES ARE BEEN USED?

Appropriate shading is an important feature of the landscaping to compliment the solar passive features of the homes.

Shade sails were selected as the main shading device over the outdoor decks and northern windows over summer. They will be fixed between the pergola posts and roof structure and can be taken down over winter to allow sunlight into the homes. Grape vines will also be trained over the pergolas to provide additional shading. Being deciduous they lose their leaves over the winter months.



A selection of deciduous trees have been planted along the northern side of the homes to provide summer shade to outdoor living areas and help reduce radiant heat loads to northern windows. The tree species were carefully selected based on their size and timing of leaf fall, as well as their appearance. Evergreen trees have been planted on the eastern and western sides of homes to provide summer shading to these areas.

For information on species type and location download the Landscape Design Plans.

Shade sail supplier: West Coast Shade Sails
www.westcoastshade.com.au

Advance deciduous tree supplier: Ellenby Tree Farm
www.ellenbytreefarm.com

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WHAT OTHER PLANTS HAVE BEEN INCORPORATED?

An extensive range of plants have been incorporated across both gardens with the aim of maximising diversity and demonstrating the wonderful variety of plants available that are suitable for Perth's challenging conditions. Plants have been selected to fulfil a range of functions, including provision of shade, wildlife habitat, intrigue and sensory stimulation for children, and of course food.

For full list of the plants used and where they've been located, download the Landscape Design Plans.

Plants supplier: Benara Nursery
www.benaranurseries.com



WHAT ARE SOME OF THE CHILDREN'S PLAY FEATURES WITHIN THE GARDEN?

Josh's House is a living, breathing family home and incorporating play elements within the landscape design was a priority.



'Nature play' is a type of play, which was adopted for Josh's House, and utilises natural materials and organic forms to create unique and creative play environments. A large sandpit with locally sourced, untreated timber climbing logs and stumps, climbing poles and a trampoline are some of the play elements located in the rear garden along with a patch of lawn that allows for a game of family cricket. Importantly the whole garden is a safe and interesting place for the children to play. There are different garden spaces to explore, insects to observe, trees to climb and fruit to pick.

Timber supplier: Ludlow Timber Products
Ph: 0438 924 964

We hope these FAQ's have been helpful and wish you all the best with own garden project!

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