

## Question Details

#	Question	Answer
1	Where is the greater emphasis in your strategy: potable water security or waterway and ecosystem restoration? If both, how do you balance priorities between	Potable water security.
2	It's fantastic that you're looking into rainwater harvesting. Have you also considered implementing a stormwater harvesting system to complement it?	No, but it could be an interesting thing to do in Texas!
3	Do you separate Grey water (e.g. washing machine discharge) and Black water (e.g. toilet discharge)? Many periurban homes in Australia reuse grey water with minimal treatment.	Very few homes in Texas do this. Typically, home-builders in Texas and elsewhere in US do not consider this option.
4	From Andrew Ross where do you find data in Texas and the US about the costs of different options	From manufacturers of treatment plants and from designers or installers of these systems.
5	Have you explored different ways using a combination of on-site renewable energy generation, at various scales, to overcome the cost in treating waste water?	No
6	For drinking water treatment of reclaimed water, have you looked into nanobubble technology?	No, would love to learn more about this from you.

- 7 The big challenge for Western Australia is the "desertification " going on. If the climatic cycles are changing, how to capture and maintain a "one water system"?
- One Water System can be designed and operated once the climatic situations are understood. As I mentioned, the 4th pillar of One Water System, access to reliable "seed" water, which could be desalinated water, which is quite possible on West Coast of Australia and USA!
- 8 The course sounds great. That is a lot of work and learning for one week.
- Yes, this is our first time offering the course and we are learning as we teach this subject.
- 9 You said about ground water before. what is the policy of using ground water in Texas? can you use it freely or with permit of the authority?
- [Visit these websites for info on this subject:](https://www.twdb.texas.gov/groundwater/conservation_districts/index.asp)  
[https://www.twdb.texas.gov/groundwater/conservation\\_districts/index.asp](https://www.twdb.texas.gov/groundwater/conservation_districts/index.asp)  
<https://texasgroundwater.org/>
- # Does the technology exist incorporate atmospheric water generation with onsite reuse?
- Yes, just Google "Air to Water" and you will see websites on this subject.
- # This may be out of scope, but are you looking into PFAS contaminants in water quality of reclaimed water? As grey water can contain plastics from clothes e.g., polyester
- Yes, we do have several research projects going on this subject. Yes, grey water will have micro-plastic, we don't have data for this yet.
- # Complete local reuse of greywater will cause some flow pattern issues for blackwater going into sewer unless the discharge infrastructure is amended as well - which needs the Utility (say, Sydney Water where I am) policies and programs.
- Very interesting question. The way I understand in Sydney Water "sewer mining" and "onsite water reuse" it does not do greywater reuse, rather it treats the raw wastewater for reuse in building and then discharge only excess treated wastewater in to Sydney sewer, which is a great way to improve the current state of Sydney Wastewater Discharge quality. I don't think the number of projects implemented so far in Sydney would show any impact on the current sewer performance! May be 10 20 years from now, it would be interesting to conduct a study to see the impact.

# It is illegal in Australia to reuse blackwater inside a household without extensive biological treatment systems, greywater is ok for toilets, rainwater and greywater for toilets can be reused into a circular system untreated, however treatment is still advise..... Piping must be colour coded and carefully signposted at outlets

You are correct, it's the same way in USA. High level of treatment, responsible management of the treatment systems, and Purple Piping should always be required for this type of projects.