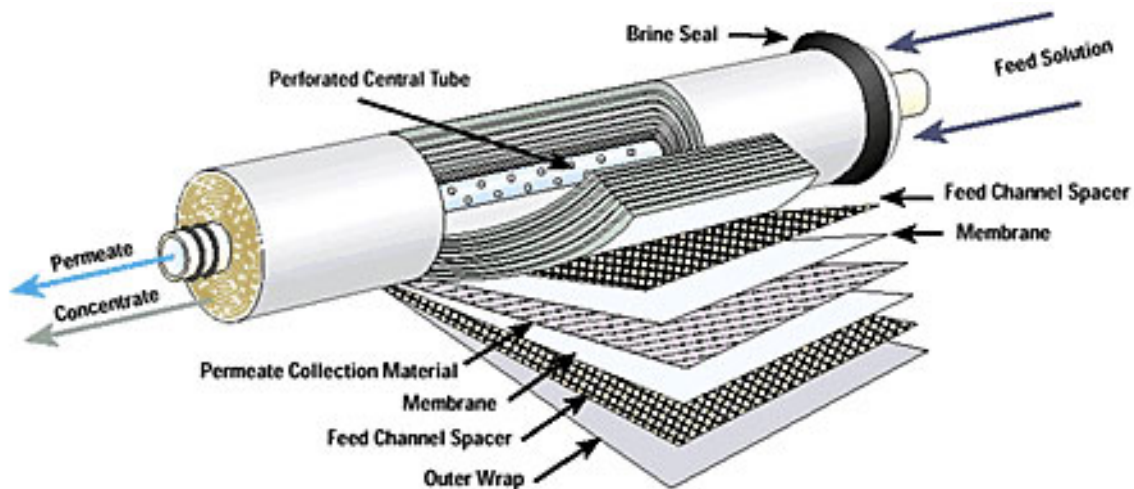


Advanced water treatment plant virtual tour worksheet

Go to: <http://www.seqwater.com.au/education/virtual-tour/bundamba-0>

Follow the water flow to take the virtual tour. Click on videos and more info at each step. Answer the following questions as you go through the tour.

- 1) What is the source water for this water treatment plant? Based on what you've learned from previous classes, are there any potential alternative water sources and how will you judge whether they can/can't be the source water?
- 2) What's the purpose of pre-treatment? Briefly describe what happened during this process.
- 3) What's inside of the vessels? How do they work to purify water? How often are the vessels washed during microfiltration? What's the purpose of back washing? How do they check the integrity of filters?
- 4) What has been removed during the reverse osmosis process? How do spiral-wound modules work? Briefly describe the process based on the following spiral-wound schematic. What's the percentage of source water that becomes purified water?



- 5) What's the purpose of UV-advanced oxidation and how does it work?
- 6) What water quality parameters are analyzed? Name at least four and explain why they are important based on what you learned from previous classes.
- 7) Why is the remineralisation step necessary? What is added into the water and what is the purpose of adding it?