Water Brothers & EPISODE GUIDE QUESTIONS Water in all the wrong places

- 1. How much of America's fruits, nuts and vegetables are grown in California?
- 2. How much food (in dollar amount) does California export to Canada each year?
- 3. What is the main water source feeding into the Delta?
- 4. What are the functions of the Delta levees?
- 5. Why are these levees prone to failure?
- 6. How does being on the fault line affect the levees?
- 7. How will the global economy be affected from water shortage in California?
- 8. Agriculture uses 80% of fresh water, how much of that amount is ground water?
- 9. What is happening to the ground water supply in California?
- 10. How is NASA helping in the monitoring of ground water?
- 11. What are some methods farmers have used to conserve water?
- 12. What is the problem with desalination of ocean water?
- 13. How much water is recycled daily in Orange County using wastewater recycling treatment?
- 14. Name two of the three steps used to recycle wastewater.
- 15. How long does it take recycle wastewater?

Water Brothers & EPISODE GUIDE ANSWERS Water in all the wrong places

- 1. How much of America's fruits, nuts and vegetables are grown in California?Half (50%)
- 2. How much food (in dollar amount) does California export to Canada each year?
 - 2 billion dollars
- 3. What is the main water source feeding into the Delta?
 - 65% comes from snowpack in the Sierra Nevada mountains
- 4. What are the functions of the Delta levees?
 - to prevent the flooding of sea water into farm lands
- 5. Why are these levees prone to failure?
 - They are old and built from rock and dirt
- 6. How does being on the fault line affect the levees?
 - Collapse due to earth quakes and all the fresh water can get contaminated with sea water
- 7. How will the global economy be affected from water shortage in California?
 - Less production of food, wine and microchips
- 8. Agriculture uses 80% of fresh water, how much of that amount is ground water?
 - 50%
- 9. What is happening to the ground water supply in California?
 - Water is being pumped up faster than it can be replenished naturally
- 10. How is NASA helping in the monitoring of ground water?
 - Using satellites to track and record the earth's gravitational pull
- 11. What are some methods farmers have used to conserve water?
 - Switching crops and computerizing drip irrigation
- 12. What is the problem with desalination of ocean water?
- Large energy expense, brine by-product is dumped back into the ocean killing marine wildlife
- 13. How much water is recycled daily in Orange County using wastewater recycling treatment?
 - 70 millions gallon which can supply 600 thousand people
- 14. Name two of the three steps used to recycle wastewater.
 - Microfiltration, reverse osmosis and UV light treatment
- 15. How long does it take to recycle wastewater?
 - 45 minutes

Water problems http://www.sierraclub.org/ca/water/index.asp

http://www.calwatercrisis.org/

http://www.calwatercrisis.org/problem.htm

Levees

http://architecture.about.com/od/damsresevoirs/g/levee.htm http://www.epa.gov/oem/docs/oil/fss/fss06/port_2.pdf

Ground water

http://www.groundwater.org/kc/whatis.html http://www.ec.gc.ca/eau-water/default.asp?lang=En&n=300688DC-1

Water treatment

http://www.science.uwaterloo.ca/~cchieh/cact/applychem/watertreatment.html