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## Water Resources ...and Your Community

### Getting Started

A person requires less than one gallon of fresh water a day to survive. That's what you need to replace the fluids you lose daily. Yet the per capita use of fresh water in the United States is nearly 2000 gallons per day.

- Why is so much water used each day?
- How does your use of water change Earth systems?
- How do changes in Earth systems affect your use of water?

What do you think? Look at the diagram of the Earth systems at the front of this book. Think about where water is stored in the various spheres within the Earth system. Think about how water moves from one sphere to another. Use your reflections about water in the Earth system to answer the three questions above. Be prepared to discuss your answers with your small group and the class.

### Scenario

Developers would like to build an industrial park, a mini-mall, and a planned residential area in your community. They estimate that the industrial park will use 100,000 gallons of water per day and the mini-mall will use 20,000 gallons per day. The planned residential area will include two city parks, one community hospital, and one golf course. As a member of a citizens' planning group, you have been assigned the task of providing the city or county planners with information related to these increased needs.

### Chapter Challenge

Your report will need to include enough information to answer the following questions:

- How much water does the residential development require?
- Does your town have enough extra water to supply the four new developments?
- If your town does not have enough extra water, what are ways that the town could increase its supply?
- Will the construction and operation of these developments pollute your town's drinking water? What factors would determine that?
- Will the addition of these developments become a strain on the water-treatment capabilities of your town? Will they add a lot of expense?

### Assessment Criteria

Think about what you have been asked to do. Scan ahead through the chapter activities to see how they might help you to meet the challenge. Work with your classmates and your teachers to define the criteria for assessing your work. Devise a grading sheet for the assessment of the challenge. Your teacher may provide you with a sample rubric to help you get started. Record all this information. Make sure that you understand the criteria and the grading scheme as well as you can before you begin.