## Introduce and Plan for Audit (1-2 meetings)

1. **Review** this audit guide and contact DOE with any questions.

2. **Introduce and discuss water use and conservation**. We encourage you to cover as many of the following topics as possible:
   - Conduct the **Drop in the Bucket** demonstration.
     - Fill your empty, clean milk jug to the top with water. Explain to the Club that this water represents ***all*** of the water in the world.
     - Tell students that you want them to guess how much of this water is available for everyday use. Have them suggest percentages.
     - Start dumping water out of the milk jug into the bucket. Tell students that you are now dumping out all of the salt water (which we can't drink, use to grow crops, use for bathing, etc.). Dump out all but ½ cup of the water. **97% of the world's water is salt water.**
     - Explain that what remains in the milk jug is fresh water, but not all of it is accessible. **About 80% of our fresh water is frozen in glaciers**. Dump this amount into the bucket. (All that should remain in the bucket is about 2 tablespoons of water).
     - Explain that not even all of the remaining water in the milk jug is available for human use. Some of that fresh water is in groundwater, mixed in with soil, or so badly polluted that it cannot be used. Dump a bit more water into the bucket.
     - What remains in the jug (1 ½ tablespoons of water) represents all of the world's fresh water that is fit for consumption and use – less than 0.5% of the world's water.
     - Of all the water that left in the jug, a large part of it is stored in the great lakes. **20% of the *world's* fresh water is found in the Great Lakes**!
   - Using the information from the Water Workshop's PowerPoint **presentation** and/or the **Putting the Pieces Together** activity starting on this page, explain where Chicago's water comes from and where it goes after it is used.
   - Have students **brainstorm some of their uses for water**, and some of the school's uses.

### Putting the Pieces Together

Chicago has a very unique system of water management in comparison to other parts of the country. This activity clarifies the flow of the water that we use from its source in Lake Michigan, to filtration and treatment, to transport, to use, and then to treatment of wastewater.

*Before the meeting:*

1. **Cut out the puzzle pieces** for this activity (only the 17 *numbered* pieces from both pages).
   - They can be found in the Appendix of this guide on p.13-14, or on your Club's Water Resource CD.
2. **Place sets (17 pieces total) in envelopes**. The number of sets is up to you; the activity can be done individually, in pairs, in groups, or with the entire Club.
3. **Copy the Statement Sheet** (p. 3) for your students.
4. **Download the following two YouTube videos** onto a computer that your students can view.
   - Go to www.YouTube.com
   - In the Search field, enter "Illinois Drinking Water." With your students, view the first two hits, produced by ISAWWA:
   - **Part 1** (6 minutes, 47 seconds)
   - **Part 2** (4 minutes, 22 seconds)

*During the meeting:*

5. **Watch the video clips** as a group.
6. Pass out the puzzle pieces and Statement Sheet.
7. Explain that there are 17 puzzle pieces in the envelope, but that only **13 of them are correct**.
8. Each piece has a number that corresponds to a statement on the list. **If the statement is true, they should use the piece to complete the puzzle.** If the statement is false, they should return the piece to the envelope.