



Overview

On the average, every American uses about 100 gallons of water a day. That makes daily consumption in the U.S. alone over 372 billion gallons. San Antonio is no different. Since our city is growing and relies heavily on the Edwards Aquifer to receive our drinking water, that makes us especially mindful about conserving water. Water we save is water that we don't have to buy. So it's important we do everything we can to decrease our water consumption.

Objectives

- To understand that water is a limited resource in San Antonio
- Discuss what options might be available
- Understand that everyone has a responsibility to be a good citizen of the community

Completion Time

90 Minutes

Materials

- Plastic cups
- Clear plastic pitcher
- Pre-prepared ballots
- Pens (enough for each participant)
- Role play cards
- Bucket
- Scarcity plans 1 & 2
- Flip chart, overhead or Powerpoint of scarcity plans.
- Markers (if using overhead or flip chart)

Part 1: Is there enough water for everyone?

Advanced Preparation

- 1. Take the clear plastic pitcher and fill it almost to the top with water.
- 2. Ensure that the role play cards are available as well as the ballots and bucket.

Procedure

Welcome:

How important is water to humans? (solicit responses) How many of you have heard about the water shortage that we have here in San Antonio? (solicit responses) This shortage is something that we call scarcity."

Setting the stage

A. Explain to the students that they are going to do an exercise that will describe the concept of scarcity even further.

- 1. "What does the word <u>scarcity</u> mean?" (Solicit answers). "We are now going to look at how the concept of <u>scarcity</u> is related to the water supply here in the San Antonio region".
- 2. Ask for 10 student volunteers to come forward. Hand each volunteer a plastic cup and one role play card labeled 1-10.
- 3. Beginning with role play card 1, have students read aloud how they use water. After they have read their card, reiterate to the audience what role the volunteer is playing.
- 4. Each student must take the amount of water indicated on his or her card from the pitcher and then pour it into the bucket.
- 5. Have the students continue this process in the order of the numbered cards. (Note: Because of the limited amount of water in the pitcher, there should not be enough to go around).
- 6. When the water runs out, lead the students in a discussion about this process and how it happened.







Transition

- A. Discuss with the students how this problem of <u>scarcity</u> has happened in the San Antonio region because of population growth, weather patterns, regulations, etc. "What are we going to do about it?
- B. Different people in the community see different ways of taking care of this <u>scarcity</u> problem. In the future, they will be proposing different options for solving our water <u>scarcity</u> and you as voters and people paying the water bills will be asked to decide on which course of action to take. This is called being a good citizen. What is <u>citizenship?</u>" (facilitate a discussion on citizenship). "We are now going to do an exercise that will allow you to practice this idea of citizenship".

Part 2: Voting on the Future Procedure

- 1. "You are now going to have an opportunity to practice good <u>citizenship</u> by voting on one of two pretend solutions to San Antonio's water <u>scarcity</u>. Let's pretend that you are now of voting age and two people in the community are proposing ways to help with our <u>scarcity</u> problem. Listen carefully because in a few minutes, you are going to get an opportunity to choose the one that you would like to see carried out."
- 2. Have two facilitators each take a scarcity plan (plans 1 & 2). Each facilitator takes an opportunity to read their plan out loud and to try and "convince" the audience why their plan is the best for San Antonio. The facilitator will write their plans on a flip chart, overhead or should already have it prepared on power point. (Note: The facilitator should really try and be believable toward the position that they are proposing).
- 3. Each facilitator will now take an opportunity to tell the audience why their "competitor's" plan will NOT work (3 reasons). Once again, the facilitator will write their plans on a flip chart, overhead or should already have it prepared on power point. (Note: Once again, the facilitator should try and be as believable as possible when attacking the other plan).
- 4. "Now that you have heard both plans, it is your turn to vote on which one you think would be the best for San Antonio". Give each student ballot and allow them to check which plan they see as the most beneficial for San Antonio. After they have finished voting, collect the ballots.
- 5. "As we said earlier, someday you could be voting on different water solutions that will be proposed. You will have the responsibility as good citizens to vote on the issues that you think are the best for our city and our region.
- 6. "We are now going to look at the results of your vote." Go through the results and lead a discussion on the results.
- 7. Reiterate to the students that someday they may vote on water issues and how important this process is for the community. Utilize the words citizenship and scarcity in the conclusion.
- 8. Answer questions.





SCARCITY PLAN #1

MY POSITION: I believe that San Antonio area governments should pass laws limiting or restricting growth all together. I believe that if we pass these new "growth" laws, our current water supply will meet the limited demands into the future.

MY PLAN:

- <u>Limited Development</u>- We must limit the amount of people that will be allowed to live in San Antonio. We will only allow one person to move in if one person moves out.
- <u>Water Allowance</u>- We must limit the amount of water that each household can use during the day. The water will only be turned on from 7:00am to 6:00pm each day. Before 7:00 in the morning and after 6:00 each night, people will just have to get use to not having water.

PROS. TO MY PLAN:

- 1. Pipe costs- If we don't have any new people moving into the area, then we will not have to build new pipes. This will help us from tearing up the roads during new construction and will allow us to have cheaper water.
- 2. New water supplies- By limiting the number of people that can live in San Antonio and by limiting their use of water between 7:00am-6:00pm, we can survive on our existing water supply and we do not need to go out and find new water.
- 3. By limiting the amount of water, it will also force some of the people currently living here to move to other cities where they want to have water all day.

CONS. TO COMPETITOR'S PLAN:

- 1. If we try and build giant rain catchers and try to build a pipeline from Canada, it is going to cost a lot of money that everyone in San Antonio will have to pay for.
- 2. By not limiting growth, we will always be looking for more water supplies for the citizens of San Antonio. What if these rain catchers and this pipeline doesn't supply enough water for the people that are moving into the area?
- 3. What about the people in Canada? How are they going to feel about taking their water supply and bringing it to South Texas? It just isn't fair, is it?





SCARCITY PLAN #2

MY POSITION: I believe that San Antonio should continue to grow. After all, there is enough water out there for everyone. I think we need to build some unique ways of getting water to the people of this area.

MY PLAN:

- <u>Pipeline from Canada</u>- We have recently been in touch with the Canadian government. Each spring, when the snow melts, they have a lot of water. In fact, they have so much water that some of their towns flood. Canada has proposed that we build a pipeline from Canada to South Texas to bring some of this extra water here. I agree. We can have the pipeline in place within two years.
- Rain Collection Systems- I propose that we build four giant rain collection buildings in San Antonio.
 Each building would be the size of the AlamoDome but would not have roofs. When it rains, the water would flow into the buildings where it would be stored, cleaned and then used to drink.

PROS. TO MY PLAN:

- 1. By building a pipeline from Canada, we can have as many people move into San Antonio as we want. There is plenty of water in Canada and we will never run out, or will we?
- 2. The giant rain catcher buildings will be located all over town so that if it rains in one part of town, we won't miss it. These buildings will be tall so we won't have to use a lot of land to build them on.
- 3. The pipeline and rain catchers will cost a lot of money at the beginning but once they are built, we won't have to spend any more money on trying to find our water supplies.

CONS. TO COMPETITOR'S PLAN:

- 1. If we tell people not to move to San Antonio, then our economy will suffer. People could lose their jobs and our city would become a ghost town.
- 2. You want people to only use water between 7:00am-6:00pm? Give me a break! What about those thirsty kids who want a drink of water at night? What about those people who work late and want to come home and take a shower? You can't turn off people's water every day!
- 3. It is against the law to tell people that they cannot move into your city. This is America and it is a free country. What are you going to do, build a wall to keep people out? People will find a way to move to San Antonio even if you pass laws saying they can't.





ROLE PLAY CARDS

(Cut out the strips and hand them to the ten volunteers you select as part of the "Is There Enough For Everyone" section).

- 1. I am related to some of the first people who settled this part of Texas. I now own a goat dairy farm and grow alfalfa and corn. (Use 2 cups of water).
- 2. My ancestors were heading toward California during the great gold rush but got distracted because of the beautiful river here in San Antonio. They decided to settle just west of San Antonio and to farm the land. (Use 2 cups of water).
- 3. My great-grandmother came out to Texas and became the first teacher in the growing town of San Antonio de Bexar. I still live on the property she bought and need water for personal use and crop irrigation. (Use 1 cup of water).
- 4. I represent a small group of families who has just traveled from Germany to settle here in San Antonio. I need water for the group of people. (Use 3 cups of water).
- 5. My grandparents left their farm in Iowa to start a farm here. I help meet the needs of the growing community. My grandfather is still alive but resists using modern farming practices to help save water. (Use 5 cups of water).
- 6. To avoid the competition in other areas of the country, my father moved his coat hanger factory from Chicago to San Antonio. The industry provides jobs for many community members. **(Use 3 cups of water).**
- 7. I represent a sewage company who is adding pipes and a new treatment facility for the growing city. Show this by pouring three cups of water back into the jug. (Use 4 cups of water).
- 8. I represent a town that was once small but now is growing on the outskirts of the city. We need water for all of the people moving here. (Use 4 cups of water).
- 9. I am a high tech farmer that has moved here to supply food to the growing communities. (Use 2 cups of water).
- 10. I have decided to start an industry that I think meets a growing need: a chocolate factory. (Use 2 cup of water).

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Scarcity and Citizenship

Citizenship Ballots

CITIZENSHIP BALLOT Please vote for which plan you think will work the best I vote for Plan #1 I vote for Plan #2	
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