The Water Planner Game

1) **Audio**

Welcome to the Water Planner Game! Your job is to make sure that Texas will have enough water, even if our population grows as expected. Without thoughtful planning and conservation, by the year 2010 many Texans will not have enough water, especially during times of drought. Close this box to continue.

Visual

The scene opens up to a landscape with sky, clouds, a river, a dam, and a lake with green land and a cross sectional view of the underground rock formations. An aquifer is represented by blue coloring in a section of the underground formations. The land surface has a windmill, a factory, a city, a farm and a desalinization plant. There is a person in a boat on the lake and a cartoon character water drop. There are also various pipes, shower heads and items that are grouped together in the foreground.

2) Audio

Use the arrow keys to move. Press the spacebar to learn more about the different sites.

Visual

If you press the arrow keys, the water drop cartoon character moves across the landscape. If you move the water drop to the factory, city, farm and desalinization plant and press the space bar, a new box pops up to provide you with more information.

3) **Factory**

Audio

Factories can recycle water for many processes by treating it on-site rather than discharging it as wastewater and taking in more water. In the water planner game, you will need to provide water and bring the water recycling icon to industrial water users. Industry is projected to use 2,700,000 acft per year by the year 2010 during a drought.

Visual

A box pops up and shows three photographs. The first photo is an industrial pump. The pump is about 4 feet tall, painted blue and connected to steel pipes and a control panel. The second photograph is an outdoor view of an industrial recycling facility that shows several large (approximately 10,000 gallon) tanks and many connecting pipes. The third photograph shows an indoor view of the industrial recycling plant with smaller (approximately 2 to 5 thousand gallon) tanks and two men at a control panel that appear to be taking water samples.

4) **City**

Audio

Educating residents about water conservation at home is important. Municipal water providers can also offer rebate programs for water efficient appliances such as showerheads, toilets and clothes washers. Also, rainwater harvesting systems, which capture rain from roof tops in storage tanks called cisterns, can be added to homes and businesses to collect water for gardening, lawn care, and other purposes. In Texas, some homes rely completely on rainwater for their water use! In the water planner game, you will need to bring water and get the right water conservation tool icons to municipal water users. Municipalities can also use treated wastewater from their wastewater treatment plants for landscape irrigation and other appropriate uses. This user group is projected to use 7,100,000 acft per year by the year 2050 during a drought.

Visual

A box pops up and shows five photographs. The first two photographs show water conservation informational brochures. The next photograph shows two rain barrels that are on the corner of a house below a rain gutter downspout. Hoses are connected to the rain barrels for watering the plants in the garden. Each barrel is dark green and approximately 50 gallons in size. The next photograph shows a galvanized steel tank that is approximately 1000 gallons in size and is shaped like a cylinder with a cone-shaped roof. The last photograph show the previous 1000 gallon tank in the background and features a vegetable garden that is watered with the harvested rainwater showing many different green plants in a square garden approximately 40 feet by 40 feet in size.

5) **Farm**

Audio

Traditional irrigation systems on farms lose water to evaporation compared to more efficient drip irrigation systems and sprinklers with drop tubes that keep water close to the ground or below ground. In the water planner game, you will need to bring water to agricultural water users and bring to this area the right water conservation tool icon. Irrigated agriculture is projected to use 8,500,000 acft per year by the year 2050 during a drought.

Visual

A box pops up and shows five photographs of irrigation systems. The irrigation systems shown are center pivot designs which are stings of mobile pipes which move in a circular motion. The center pivot systems form the radius of a circle which extends about a quarter a mile (1,320 feet).

The first photo shows a traditional agricultural sprinkle system which has is high water pressure and distributes a high volume. The sprinkler is in a field of short green row crops. The photo shows metal pipe joined by A-shaped metal frames on wheels. The irrigation system is spraying the fields below and also shooting a long (approximately 75 foot) stream of water from the end.

The remaining photographs show water conserving irrigation systems that minimize water loss due to evaporation. A photograph of a center pivot system which low elevation spray nozzle in a field of low growing rows of crops is shown. A third photograph shows a close up of a drop tube of a low elevation low pressure center pivot system which is in a furrow between rows of crops. A forth photo show a close up of a low-to-ground sprinkler spray nozzle which is a pipe just inches over a low growing section of alfalfa.

The last photo shows three men riding a tractor in a cultivated field with no crops. One man is driving the tractor and the other two are on a outer platform being drawn behind the tractor which is laying down rows of a pipe in the furrows of the field for a drip irrigation system.