BACKGROUND FOR TEACHERS

I INTRODUCTION

Water is necessary for life and humans have many special needs. Water is used for a multitude of purposes, consequently we have learned to process water to meet the quality requirements for various purposes and we have learned to reclaim wastewater for reuse. Plentiful water has made our lives easier in many ways. Our uses of water have put a strain on the available sources and this overuse gives us the responsibility to protect the water resources for ourselves and future generations.

How we use water:

1. Energy Production: Waterwheels and hydro-electric turbines are examples of ways water is used to produce energy and do work. Many heating and cooling systems use water to transfer heat.

2. Transportation: Most of the world's major cities are located on waterways because water transportation is one of the oldest ways of moving goods and people.

3. Moving Waste: Water is used to move waste from where we don't want it. Examples of moving waste with water are steam-cleaning, washing, hosing and transporting sewage from homes and industries.

4. Recreation: We all enjoy using water for fishing, swimming and boating. What would life be like without water slides and swimming pools?

5. Manufacturing process: Water is used throughout industry to manufacture goods, to cool equipment, to process foods and transport waste products of the manufactured goods.

6. Food: Not only do we use water to drink, but annually we harvest recreationally and commercially, millions of tons of shellfish and finfish from the world's fresh and salt waters for food.

II THE NATURE OF WATER

Water is essential to life and natural processes on earth.

1. Water is important to life: Nearly three quarters of the human body is made of water. Water aids the body in digesting and circulating food, eliminating wastes, and regulating temperature. A person needs at least five pints of high quality, potable water a day to do these things. Other living things need water for similar reasons.