

## Water Use & Management

- Global water use
- Residential Water Use
- Industrial Water Use
- Agricultural Water Use
- Water Management Projects
- Water Conservation - loss of resource - increase of cost
- Future Solutions

## Global water use

- **depends on**
  - supply
  - population
  - economic conditions
  - agriculture highest for all of world except europe highest in industry

## Residential Water Use

- **uses in home**
  - drinking, cooking, washing, flushing
  - watering grass, washing the car
  - USA=avg person uses 300 liters/day vs. India 41 liters/day
- **Water Treatment**
  - potable - safe to drink
  - pathogens - organisms that cause illness
  - water must be treated
    - physical and chemical filtration
    - chemical filtration w/ air, chlorine & fluorine

## Industrial Water Use

- **manufacture goods**
  - make paper
  - 1000 liters required to produce 1kg of aluminum
- **dispose of waste**
- **power plants**
  - hydroelectric
  - cooling systems

## Agricultural Water Use

- **67% of world water use**
  - i.e. 300 liters to make one ear of corn
- **Irrigation - way of providing water to plants**
  - sprinklers - water is lost to evaporation
  - flooding from rivers

## Water Management Projects

- **water diversion**
- **dams and reserviors**
- **Consider...**
- **Environmental Impact**
- **Political Consequence**

## Water Conservation - loss of resource - increase of cost

- **irrigation**
  - drip systems
- **industry**
  - recycle water instead of dumping back into river
- **at home**
  - water use habits
    - list some examples
  - technologies
    - list some examples

## Future Solutions

- **desalination**
- **transport of water**
  - ships
  - pipeline
  - towing ice?