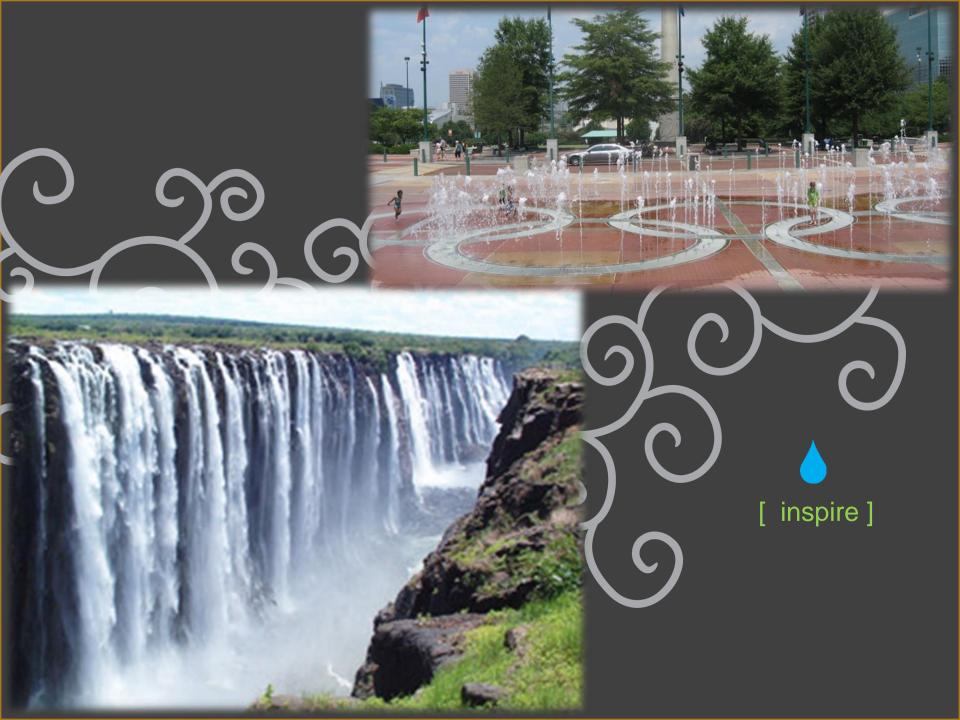
#### **GEORGIA**

# Water Tower Competition

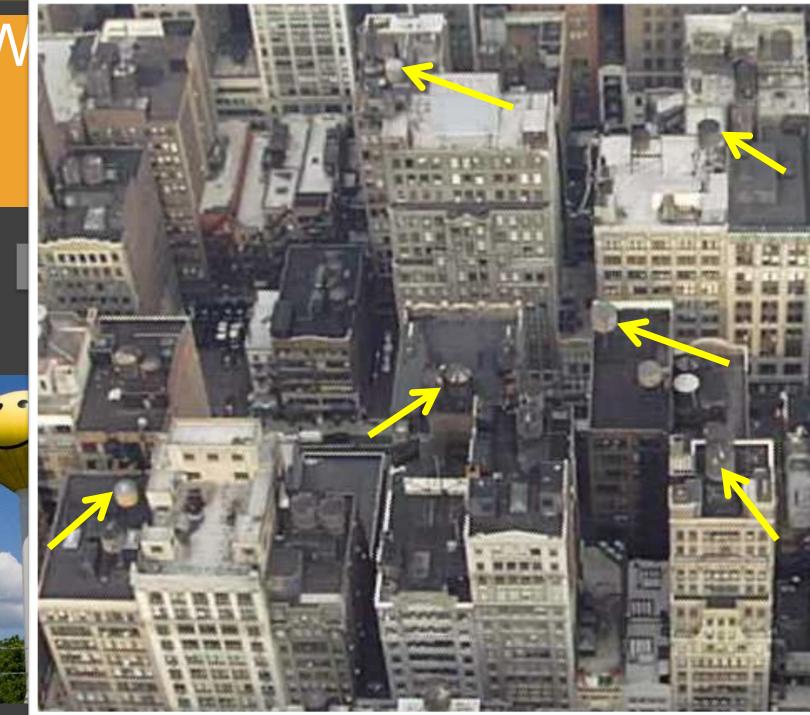
An Engineering Challenge for Middle School Students

# Potable water is the lifeblood of any community.





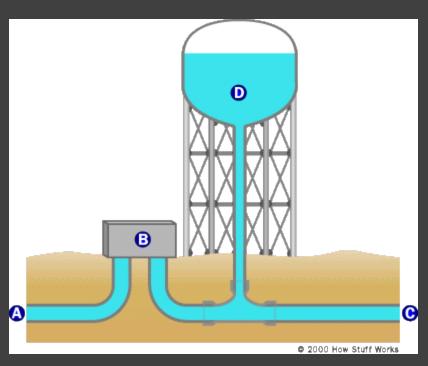








## How does a... Vater Tower Work?



How much water do they hold?

Backyard pool can hold 20,000 gal.

Can hold 50 pools or more!

(1 million gallons!)

A From the treatment plant

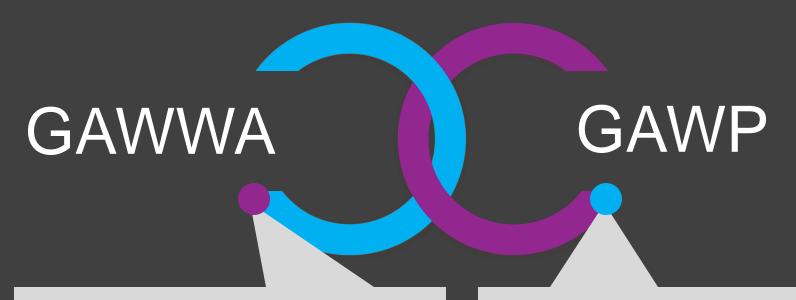
B Pump

To primary feeders and customers

D Water

Pumps are nocturnal??? ©

#### [ Georgia water professionals ]



1,200 professionals in the field of water supply

AWWA is an international nonprofit & educational society and the largest and oldest organization of water professionals in the world

Mission to unite the water community to protect public health and provide safe water for all

Membership of over 4,000 water and wastewater professionals through out the State of Georgia

Dedicated to professional education, dissemination of sound technical principles and scientific information, increased public understanding, and promotion of valid public laws and programs [ 3rd Annual]

## Water Tower Competition

An Engineering Challenge for Middle School Students



Water resource engineering. Infrastructure. Water treatment. Conservation.

Teamwork & Critical Thinking

Recycling & Conservation

#### Students Learn

Clean Water & Related Issues

The Water Profession

Water Tower Competition



From today's youth come tomorrow's leaders –
 Let's lead some to the water profession!





# Moodiand, nool

[ October 24, 2014 ]

#### [ the rules ]

**Open to Middle School Students** 

Models must be designed & built by students

Coaching & advising by an adult is encouraged

Team entries are acceptable (up to 4 students)

[ model requirements]

#### Tank base

Support legs or pedestal must fit in a 1 ft wide x 1 ft deep space

#### Tank Height

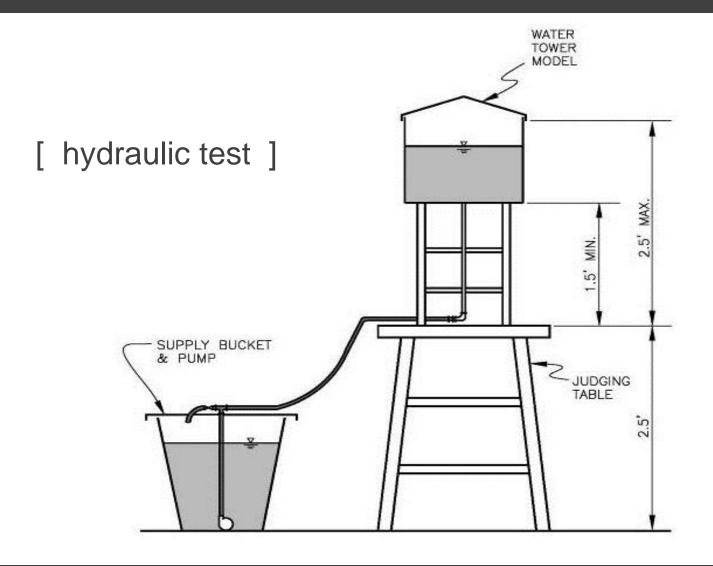
1.5 ft minimum (from base to tank bottom)

2.5 maximum (from base to tank top)

Tank Volume

1.0 gallon minimum

2.5 gallon maximum



#### [ judging categories ]

Design
Ingenuity &
Interview
Presentation

Imagination & Skill 5-minute Presentation & Interview

time to fill & drain elevated tank with 1 gallon of water

**Hydraulic Efficiency**  **Structural Efficiency** 

structure weight/ (volume x height)







1st Place Tower \$300 & trophy

2<sup>nd</sup> Place Tower \$200 & trophy

3rd Place Tower \$100 & trophy

#### **All Entrants**

T-shirt
Certificate of Participation

#### Teacher Support

Encourage Students to Enter

Promote the MWTC in the classroom

**Students** 

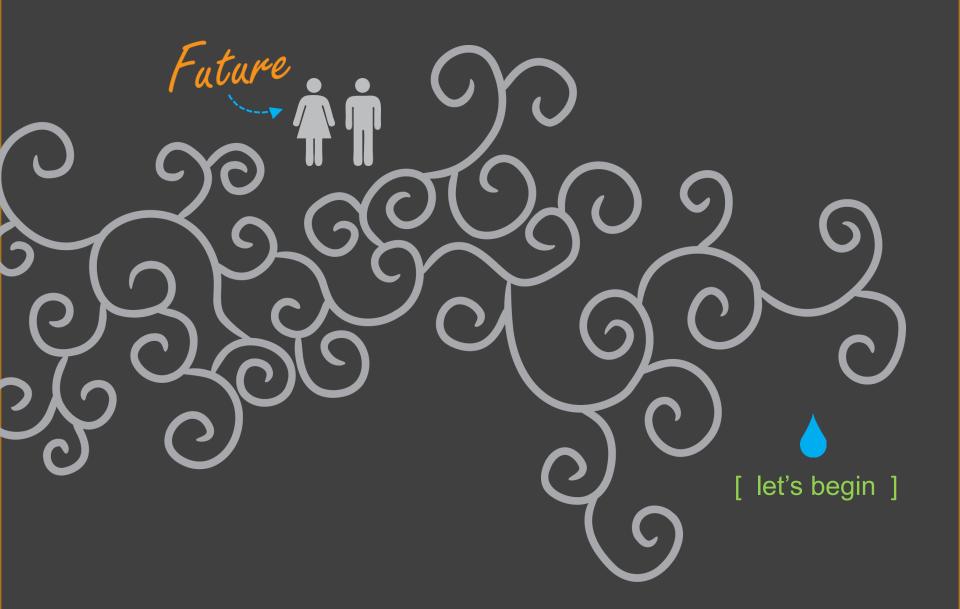
Mentors

Offer incentives to students, e.g., extra credit

Volunteer for the day of the event

Communicate with the MWTC Committee for any questions/concerns





### Model Water Tower Photo Gallery Winners



### Model Water Tower Photo Gallery Towers...Towers....Towers....



### Model Water Tower Photo Gallery Student Activities

