Greensborough

Challenge: A drought has occurred and the community is facing many challenges. Since the drought has brought consistently high temperatures, people are using their air conditioners more, which has contributed to blackouts (no power) and brownouts (reductions in power) in the community. Try to reduce the impacts of power outages and take care of populations vulnerable to heat.

Option A
Lower power demand

Reduce power outages by using conservation practices and take care of disadvantaged people that may be affected by heat and power outages.

PUBLIC HEALTH

Health assessment

PUBLIC INFORMATION AND WARNING

Education on conservation practices

PLANNING AND COORDINATION

Efficiency tax breaks

TRANSPORTATION

Specialized spraying trucks

EMERGENCY SUPPLY AND RESPONSE

Emergency kits & Trained utility personnel

FIRE!

Fire trucks & Evacuation Plan

Option B
Increase power supply

Make your community more resilient to power outages, bring additional power into the city, and take care of disadvantaged people that may still be affected by power outages and heat.

PUBLIC HEALTH

Health assessment

PUBLIC INFORMATION AND WARNING

Prepared public media messages

PLANNING AND COORDINATION

Additional resource supply

INFRASTRUCTURE

IT backup system

EMERGENCY SUPPLY AND RESPONSE

Trained 1st responders & Trained utility personnel

FIRE!

Fire trucks & Redirection of traffic

Newdale

Challenge: A drought has occurred and the community is facing many challenges. A popular river that runs through your city has very low flows. Stagnant water is the best environment for outbreaks of mosquitoes that might be infected with West Nile Virus. Reduce the risk of people being infected with West Nile Virus.

Option A
Reduce the number of mosquitoes
Reduce the risk of waterborne illnesses by lowering the number of mosquitoes.

MONITORING

Environmental health monitoring

PUBLIC INFORMATION AND WARNING

Prepared public information messages

TRANSPORTATION

Specialized spraying trucks

EMERGENCY SUPPLY AND RESPONSE

Emergency kits & Trained 1st responders

PLANNING AND COORDINATION

Multi-hazard mitigation plan

FIRE!

Incident command center & Agreement with neighboring communities

Option B
Reduce the interaction of people and mosquitoes
Reduce the risk of waterborne illnesses within the community by minimizing interaction of people and mosquitoes.

PUBLIC HEALTH

Health assessment

MONITORING

Information about vulnerable populations

PUBLIC INFORMATION AND WARNING

Information signs

EMERGENCY SUPPLY AND RESPONSE

Trained 1st responders & Partnership with local businesses

PLANNING AND COORDINATION

Modify recreational activities

FIRE!

Incident command vehicle & Prepared public media messages

Bridgelyn

Challenge: During a drought, the demand for water is higher than usual. As the drought progresses, the water demand increases and leads to a pump failure in one of your municipal wells, which leads to a reduction of water supply to some communities. The pump repair will take 3 days. Ensure that people will have enough drinking water during those days.

Option A
Decrease water demand
Implement conservation practices and decrease demand on other pumps in the city.

MONITORING

Water use maps

PUBLIC INFORMATION AND WARNING

Prepared public information messages OR Education on conservation practices

PLANNING AND COORDINATION

Drought plan OR Efficiency tax breaks

INFRASTRUCTURE

Updated water infrastructure & Trained utility personnel

EMERGENCY SUPPLY AND RESPONSE

Citizen volunteers

FIRE!

Emergency kits & Agreement with neighboring communities

Option B
Increase water supply
Bring more water into the area affected by pump failure.

MONITORING

Groundwater maps & Information about vulnerable populations

TRANSPORTATION

Water supply tanks

PLANNING AND COORDINATION

Agreement with neighboring communities

INFRASTRUCTURE

Deepen wells

EMERGENCY SUPPLY AND RESPONSE

Partnerships with local businesses OR Emergency kits

FIRE!

Volunteer firefighters & Additional resource supply

Belcoast

Challenge: A drought has hit and your community is now especially susceptible to poor water quality and quantity, which may affect the tourism and also the diverse plant and animal species in the area. The majority of touristic activities occur on a reservoir and the river flowing out of it. How do you best conserve the natural resources of the area without threatening the incomes coming from tourism and recreation?

Option A
Keep water in the reservoir
Prioritize keeping water in the reservoir and maintain the touristic attractions at the reservoir.

MONITORING

Environmental health monitoring OR Water monitoring

PUBLIC INFORMATION AND WARNING

Education on conservation practices

PLANNING AND COORDINATION

Watershed restoration plan & Efficiency tax breaks

NATURAL RESOURCES/ENVIRONMENTAL HEALTH

Modify recreational activities OR Best management practices

EMERGENCY SUPPLY AND RESPONSE

Fish relocation

FIRE!

Prepared public media messages & Helicopters

Option B
Keep water in the stream
Order higher releases from the reservoir to keep higher stream-flows, which will maintain tourism at the stream.

INFRASTRUCTURE

Boat ramp extensions

PUBLIC INFORMATION AND WARNING

Education on conservation practices & Information signs

PLANNING AND COORDINATION

Drought plan

NATURAL RESOURCES/ENVIRONMENTAL HEALTH

Modify recreational activities OR Best management practices

EMERGENCY SUPPLY AND RESPONSE

Loan or grant assistance

FIRE!

Additional resource supply & Air tanker

Silvergrass

Challenge: Your community is lucky to have multiple wells, but water is scarce during the drought. Pastures are quickly drying up, and the surrounding ranches can't sustain their large numbers of livestock. Hay production is minimal. Ensure that ranchers will be able to stay in business during and after the drought.

Option A
Save the herd
Save your core breeding herd even if it means that your pastures will be recovering from drought longer and your expenses will be higher in following years.

MONITORING

Water monitoring

PUBLIC INFORMATION AND WARNING

Public educational workshop

PLANNING AND COORDINATION

Agreement with neighboring communities & Loan or grant assistance

TRANSPORTATION

Water supply tanks

INFRASTRUCTURE

Deepen wells OR Water holes for cattle

FIRE!

Tractors and disks for fire lines & Volunteer firefighters

Option B
Save the pasture
Alleviate pasture conditions by selling some of your core breeding herd animals. It might save some of your resources during drought, but you will need to restock part of your herd in following years.

NATURAL RESOURCES/ENVIRONMENTAL HEALTH

Best management practices

PUBLIC INFORMATION AND WARNING

Public educational workshop

PLANNING AND COORDINATION

Drought plan & Loan or grant assistance

TRANSPORTATION

Citizen volunteers

INFRASTRUCTURE

Strong interpersonal relationships

FIRE!

Brush trucks & Volunteers trained in first aid

Skyview

Challenge: Your community is in the middle of a drought and the town's wells are threatened by increased nitrate levels that can affect the health of your citizens and potentially cause Blue Baby Syndrome. Ensure that the health of your citizens is not affected by contaminated water.

Option A
Increase water supply
Bring more clean water in the community during the drought. Testing and potentially diluting the nitrate concentration with clean water will secure people's health.

INFRASTRUCTURE

Drill new wells

MONITORING

Groundwater maps OR Water monitoring

TRANSPORTATION

Water supply tanks

EMERGENCY SUPPLY AND RESPONSE

Citizen volunteers

PLANNING AND COORDINATION

Strong interpersonal relationships wells & Additional resource supply OR Drought plan

FIRE!

Defensible space around buildings & Helicopters

Option B
Decrease nitrate concentrations
Prevent nitrates from entering the city's waterways and educate people on possible nitrate risks.

PUBLIC HEALTH

Health assessment

MONITORING

Information about vulnerable populations OR Water testing kits

NATURAL RESOURCES/ENVIRONMENTAL HEALTH

Best management practices

INFRASTRUCTURE

Updated water infrastructure

PUBLIC INFORMATION AND WARNING

Education on conservation practices & Public educational workshop

FIRE!

Agreement with neighboring communities & Fire trucks