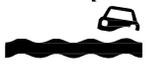


Vulnerability Assessment for Duck Hill, MS

| Key Assets or Resources | Weather or Climate Hazard | Potential or Historical Consequences | Climate stressors and trend | Non-climate stressors and trend | Potential tipping point and probability (probable, increasingly probable, decreasingly probable, improbable) | Sensitivity or Consequence (high, medium, low) | Adaptive Capacity/ Coping Capacity (high, medium, low) | Vulnerability (high, medium, low) |
|---|---|---|---|--|---|---|---|--|
|  Binford High School & Gym |  Heavy precipitation events | Flooding in the street, inside the gym, and surrounding building area | Heavy rain events; increasing | Large parking lot uphill from building's main door; decreasing | Community exhaustion with the problem; has required closing the building which need lots of retrofit and upgrades |  High |  Medium |  Medium/High |
|  Residential Homes |  Heavy precipitation events | Flooding in homes, street and surrounding building area | Heavy rain events; increasing | Increased flooding due to ditches not | Probable increasing, (need to find funds to support) |  High |  Medium |  Medium/High |
|  Elderly Residents |  Heat waves | Heat-related illnesses, death | Warmer nights with little opportunity to cool down; | Lack of air conditioning and | Probable increasing with summer temperatures increasing and lack of air conditioners and cooling centers |  High |  Medium |  Medium/High |
|  Church/ Historical Sites |  Flooding | Possible flooding in the yard and not being able to attend | Heavy rain event; increasing | Sidewalks in poor condition, front area | Probable increasing with extreme rain and flash flooding |  Medium |  Medium |  Medium |

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|--|--|--|---|--|--|---|--|---|
|  Bogue Creek |  Overflooding | Possible breaching and flooding of roads | Heavy rain events; increasing | Needs to be cleaned for better | Probable increasing with extreme rain events |  Medium |  High |  Low |
|  Route 51 |  Flash flooding | Temporary or permanent road closure | Heavy rain events; increasing | Riverbank hardening upstream reduces sediment supply | Highway department declares bridge unsafe; increasingly probable; will shut down food access |  High |  Low |  High |
|  Affordable Housing |  Extreme heat and local flooding | Lack of housing | ↑urban heat due to ↑ temperatures and loss of tree canopy; ↑ utility costs; Insufficient/inefficient HVAC | Increased house prices | Community residents move away from Duck Hill to find alternative options |  High |  Low (need to find funds to |  Medium |
|  Energy Efficiency |  Extreme heat and local flooding | | ↑urban heat due to ↑ temperatures and loss of tree canopy; ↑ utility costs; Insufficient/inefficient HVAC | Increased cost of energy | Community residents move away from Duck Hill to find alternative options |  High |  Low (need to find funds to support) |  Medium |
|  Critical Infrastructure |  Flash flooding | Temporary outages | Heavy rain events; increasing | Increased cost of energy/water | Utilities retrofit to become more resilient |  High |  Low |  High |

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|--|---|---|--|---|--|---|---|---|
|  Health Care Access/Hospital |  Flooding/ increased heat | Electrical outage due to back up generators in basement | Heavy rain events, consecutive days of rain causing public health problems such as vector borne diseases and | Health Care/ Hospital is 30-40 minutes away; might not be accessible during | Inaccessible and no emergency 911 system for support |  High |  Low |  High |
|  Open Space and Parks | Landscaping may die off due to drought, fires and/or pests) | | Increased drought in growing season and changes in precipitation | Invasive plants | Potential loss of interest in community gardens |  Medium |  High |  Medium |
|  Agriculture | Agriculture may decrease due to soil loss, drought, fires and/or pests) | | Increased drought in growing season and changes in precipitation | | Loss of income, increasingly probable |  Medium |  Medium |  Medium |