



New Orleans Climate Smart Cities

Model Criteria May 22, 2017

Goal	Goal Weights	Criteria	Criteria Weights	Methodology	Data (Description, Date, Resolution)	Data Source
Cool	15%					
		LandSat Urban Heat Islands	100%	<p>This model identifies urban heat islands within the City of New Orleans with elevated daytime land surface temperature (LST) averaging at least 1.25 degrees Fahrenheit above the mean daily temperature during late June/early July.</p> <p>The model results were derived from LANDSAT satellite data, which provides a 30m downscaled average land surface temperature over 16 day period. Historical records show the warmest months in New Orleans are July and August. The model used a scene from August 26, 2015 the only cloud free LANDSAT scene from the year.</p>	<p>LANDSAT Land Surface Temperature was derived using a methodology developed by ESRI that converts the thermal bands of the imagery into degrees Fahrenheit using the raster function template editor. A more detailed description of the methodology can be found here - https://blogs.esri.com/esri/arcgis/2014/01/06/deriving-temperature-from-landsat-8-thermal-bands-tirs/</p>	LANDSAT

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Absorb	15%					
		High Exceedance Flooding	40%	Storm drains are designed to accommodate frequent storms. This model identifies high exceedance flood areas, areas prone to flooding of up to 2 feet during the 2, 5, and 10 year storms, within the New Orleans City limits where green infrastructure could mitigate stormwater flooding impacts. Priority was assigned as follows: Very High (5) = 2-year storm flood inundation zone High (4) = 5-year storm flood inundation zone Moderate(3) = 10-year storm flood inundation zone	The data shows areas in New Orleans that will be inundated by flood waters of up to 2 feet during a 2, 5, 10 year average precipitation event. The data was provided in a TIN format (10 ft resolution).	CDM Smith
		Low Exceedance Flooding	10%	This model identifies low exceedance flood areas based on the 2015 Flood Advisory Zones developed by FEMA within the New Orleans City limits. Priority was assigned as follows: Very High priority (5) was given to those areas within the 100 year floodplain (classes AE,VE) High priority (4) is given to those areas within the 500 year floodplain (.2% annual chance) Moderate priority (3) is given to those areas protected by levee	2016 FEMA Flood Zones	Federal Emergency Management Administration (FEMA)
		Wetlands	5%	This model identifies wetland areas that can store or absorb local rainfall. All features were buffered by 30 feet. Very High priority (5) is given to all buffered features	2014 NOLA Wetlands	City of New Orleans
		Water Table Depth	10%	Water table depth is the shallowest depth to a wet soil layer at any time during the year. These areas present challenges for stormwater management and the location of a seasonal high water table can be important in the design of certain green infrastructure. This model identifies areas where seasonal high water table is greater than or equal to 31 centimeter. Priority values were assigned using natural breaks as follows: Very High(5) = depth to groundwater is >84cm High (4) = depth to groundwater is 69cm - 84cm Moderate (3) = depth to groundwater is 31cm - 68cm	Esri processed the Soil Survey Geographic Database (SSURGO) dataset that is produced by the Natural Resources Conservation Service (NRCS) to extract the map unit aggregated attribute table (MUAGGATT) table's WTDEPANMIN field. This was the basis for producing a 30m cell size raster from the SSURGO polygons. Values are in the form of depth in centimeters below the surface.	USDA Natural Resource Conservation Service (NRCS) downloaded from ArcGIS online in December 2016
		Percent Impervious Basin	15%	Stormwater discharge increase with increasing impervious cover. Green infrastructure in basins with high impervious cover can help minimize flooding and other storm impacts. This model prioritizes stormwater management catchments within New Orleans City limits based on percent impervious cover in each catchment. Breaks were determined using a natural breaks classification as follows: Very High (5): >71.5% Impervious cover High (4): 57.7% -71.5% Impervious Cover Moderate (3): 51.1%-57.7% Impervious Cover	Stormwater catchments Building Footprints Roads	New Orleans SWBO City of New Orleans

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		Estimated Runoff Potential Water Quality Priorities	15%	<p>This model identifies those areas where there is potential for runoff and estimates runoff volume for a 1/2" storm event using the NRCS Curve Number methodology, which considers soil and land use characteristics combinations in estimating runoff. The 1/2" storm event was chosen to highlight water quality priorities. Small events account for transport of most pollutants in an urban landscape. (Sansalone and Cristina, 2004)</p> <p>Runoff levels were scored based on projected runoff using a natural breaks slice as follows: Very High Priority (5) = >0.087" High Priority (4) = 0.056" - 0.087" Moderate Priority (3) = 0.017" - 0.056"</p>	SSURGO Soil Hydrologic Groups 2011 LANDUSE Purdue Runoff Curve Number Table	ESRI Image Service NLCD Purdue University
		Estimated Runoff Potential Water Quantity Priority	5%	<p>This model identifies those areas where there is potential for runoff and estimates runoff volume for a 5.5" storm event using the NRCS Curve Number methodology, which considers soil and land use characteristics combinations in estimating runoff. The 5.5" storm event represents the 10-yr, 24 hour storm. Under climate scenarios large rain events are predicted to become increasingly common, and the estimated runoff potential from this event highlights areas where estimated runoff will likely overwhelm existing stormwater management infrastructure.</p> <p>Runoff levels were scored based on projected runoff using a natural breaks slice as follows: Very High Priority (5) = >4.26" High Priority (4) = 3.74" - 4.26" Moderate Priority (3) = 3.06" - 3.74"</p>	SSURGO Soil Hydrologic Groups 2011 LANDUSE Purdue Runoff Curve Number Table	ESRI Image Service NLCD Purdue University

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Equity	25%					
		Low Income Households	15%	<p>This model identifies socially vulnerable populations based on the percent of households within a block group where the household income is less than or equal to twice the federal "poverty level." The percentage of households with incomes less than or equal to twice the federal "poverty level" were broken into 0 to 5 priority classes using a natural breaks slice classification. The break points for the moderate to high priority classes were as follows: Moderate (3) = 47% to 60 % Moderate to High (4) = 60.1% to 74% High (5) = 74.1% to 100%</p> <p>Block groups with less than 100 people and parks and natural areas were removed.</p> <p>The model is based on data collected for the EPA Environmental Justice Screening Tool. "EPA should pay particular attention to the vulnerabilities of these populations because they have historically been exposed to a combination of physical, chemical, biological, social, and cultural factors that have imposed greater environmental burdens on them than those imposed on the general population." http://www.epa.gov/sites/production/files/2015-05/documents/ejscreen_technical_document_20150505.pdf"</p>	EPA EJ Screen	EPA EJ Screen
		Minority Population	15%	<p>This model identifies socially vulnerable populations based on the percent of individuals within a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. The percentage of individuals identifying as a person of color were broken into 0 to 5 priority classes using a natural breaks slice classification. The break points for the moderate to high priority classes were as follows: Moderate (3) = 72% to 87 % Moderate to High (4) = 87.1% to 95% High (5) = 95.1% to 100%</p> <p>Block groups with less than 100 people and parks and natural areas were removed.</p> <p>The model is based on data collected for the EPA Environmental Justice Screening Tool. "EPA should pay particular attention to the vulnerabilities of these populations because they have historically been exposed to a combination of physical, chemical, biological, social, and cultural factors that have imposed greater environmental burdens on them than those imposed on the general population." http://www.epa.gov/sites/production/files/2015-05/documents/ejscreen_technical_document_20150505.pdf"</p>	EPA EJ Screen	EPA EJ Screen

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		Less than a HS Education	15%	<p>This model identifies socially vulnerable populations based on the percent of people age 25 and older in a block group that do not have a high school diploma. Block groups with populations without a high school degree were broken into 0 to 5 priority classes using a natural breaks slice classification. The break points for the moderate to high priority classes were as follows: Moderate (3) = 18% to 25% Moderate to High (4) = 25.1% to 40% High (5) = 40.1% to 89%</p> <p>Block groups with less than 100 people and parks and natural areas were removed.</p> <p>The model is based on data collected for the EPA Environmental Justice Screening Tool. "EPA should pay particular attention to the vulnerabilities of these populations because they have historically been exposed to a combination of physical, chemical, biological, social, and cultural factors that have imposed greater environmental burdens on them than those imposed on the general population." http://www.epa.gov/sites/production/files/2015-05/documents/ejscreen_technical_document_20150505.pdf"</p>	EPA EJ Screen	EPA EJ Screen
		Linguistic Isolation	7%	<p>This model identifies socially vulnerable populations based on the percent of people in a block group living in linguistically isolated households. A linguistically isolated household is a household in which all members age 14 years and over speak a language other than English and also speak English less than "very well" (have difficulty with English). Block groups with linguistically isolated households were broken into 0 to 5 priority classes using a natural breaks slice classification. The break points for the moderate to high priority classes were as follows: Moderate (3) = 13.5% to 25.1 % Moderate to High (4) = 25.2% to 45.6% High (5) = 45.7% to 100%</p> <p>Zero block groups and parks and natural areas were removed.</p> <p>The model is based on data collected for the EPA Environmental Justice Screening Tool. "EPA should pay particular attention to the vulnerabilities of these populations because they have historically been exposed to a combination of physical, chemical, biological, social, and cultural factors that have imposed greater environmental burdens on them than those imposed on the general population." http://www.epa.gov/sites/production/files/2015-05/documents/ejscreen_technical_document_20150505.pdf"</p>	EPA EJ Screen	EPA EJ Screen

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		Population over 64	7%	<p>This model identifies socially vulnerable populations based on the percent of people in a block group over the age of 64. Block groups with individuals over age 64 were broken into 0 to 5 priority classes using a natural breaks slice classification. The break points for the moderate to high priority classes were as follows: Moderate (3) = 10% to 14% Moderate to High (4) = 14.1% to 20% High (5) = 20.1% to 100%</p> <p>Block groups with less than 100 people and parks and natural areas were removed.</p> <p>The model is based on data collected for the EPA Environmental Justice Screening Tool. "EPA should pay particular attention to the vulnerabilities of these populations because they have historically been exposed to a combination of physical, chemical, biological, social, and cultural factors that have imposed greater environmental burdens on them than those imposed on the general population." http://www.epa.gov/sites/production/files/2015-05/documents/ejscreen_technical_document_20150505.pdf"</p>	EPA EJ Screen	EPA EJ Screen
		Population under 5	7%	<p>This model identifies socially vulnerable populations based on the percent of people in a block group under the age of 5. Block groups with individuals under the age of 5 were broken into 0 to 5 priority classes using a natural breaks slice classification. The break points for the moderate to high priority classes were as follows: Moderate (3) = 7% to 10% Moderate to High (4) = 10.1% to 21% High (5) = 21.1% to 38%</p> <p>Block groups with less than 100 people and parks and natural areas were removed.</p> <p>The model is based on data collected for the EPA Environmental Justice Screening Tool. "EPA should pay particular attention to the vulnerabilities of these populations because they have historically been exposed to a combination of physical, chemical, biological, social, and cultural factors that have imposed greater environmental burdens on them than those imposed on the general population." http://www.epa.gov/sites/production/files/2015-05/documents/ejscreen_technical_document_20150505.pdf"</p>	EPA EJ Screen	EPA EJ Screen
		Population Density	7%	<p>This model assigns social vulnerability based upon population density from US Census Block Group data.</p> <p>The input data is from Esri's 2014 Estimated Demographics and includes Population per Square Mile.</p> <p>Population Density is pre-calculated by Esri. Geometrical Interval Breaks are used to determine 6 classes with the top 3 being classified as High Vulnerability 6153 - 38422 (5) Moderate to High Vulnerability 1001- 6152 (4) and Moderate Vulnerability 178 - 1000(3).</p>	Population density (sq mi)	ESRI

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		Households receiving SNAP Benefits	7%	<p>This model assigns social vulnerability based upon areas with a high percentage of households receiving snap benefits.</p> <p>The input data is from American Community Survey 5 year estimates of percent households calculated using households receiving SNAP estimate and total households by block group.</p> <p>Geometrical Interval Breaks are used to determine 6 classes with the top 3 being classified as High Vulnerability 47% -49% (5) Moderate to High Vulnerability 49.1% - 57% (4) and Moderate Vulnerability 57.1%-96%(3).</p>	Households receiving SNAP Benefits	ACS
		Single Parent Households	7%	<p>This model assigns social vulnerability based upon areas with a high percentage of single parents.</p> <p>The input data is from American Community Survey 5 year estimates of percent households calculated using single parent household estimates and total households by block group.</p> <p>Geometrical Interval Breaks are used to determine 6 classes with the top 3 being classified as High Vulnerability 34% -67% (5) Moderate to High Vulnerability 67.1% - 76% (4) and Moderate Vulnerability 76.1%-100%(3).</p>	Single Parent Households	ACS
		Households with Disabilities	7%	<p>Identify areas with a high percentage of population with a disability</p> <p>The input data is from American Community Survey 5 year estimates of percent households with disabilities. Percent household was calculated using households with disabilities estimates and total households by block group.</p> <p>Geometrical Interval Breaks are used to determine 6 classes with the top 3 being classified as High Vulnerability 6.6% -10% (5) Moderate to High Vulnerability 1% - 6.5% (4) and Moderate Vulnerability 0.3%-1%(3).</p>	Households with Disability	ACS
		Vehicle Availability	7%	<p>This model assigns social vulnerability based upon areas with a high percentage of households that do not have access to a car</p> <p>The input data is from American Community Survey 5 year estimates of percent of households with vehicles available .</p> <p>Geometrical Interval Breaks are used to determine 6 classes with the top 3 being classified as High Vulnerability <5% (5) Moderate to High Vulnerability 5.1% - 7% (4) and Moderate Vulnerability 7.1% - 10%(3).</p>	Vehicle Availability	ACS



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		Rent Burden	7%	<p>This model assigns social vulnerability based on areas where a high percentage of households have monthly rent more than 30% of household income.</p> <p>The input data is from the New Orleans Redevelopment Authority</p> <p>Manual breaks were used to determine the top 3 classes Very High Vulnerability >49.9% (5) High Vulnerability 40% - 49.9% (4) and Moderate Vulnerability 30%-39.9%(3).</p>	Percent Household that are Rent Burdened	New Orleans Redevelopment Authority
		Stacked Priorities				

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Connect	15%					
		Connect People to Employment Centers	20%	<p>A primary goal in the Resilient New Orleans Strategic Vision Plan is transform city systems to better connect people employment and essential services. This model identifies key corridors that connect people to employment.</p> <p>Using Network Analyst Closest Facility tool we identified the most direct routes with potential for active transportation demand from center of block groups to anchor institutions (businesses with greater than 1000 employees), 2) from center of block groups to employment centers (areas with high density of large businesses of greater than 50 employees and less than 1000). All routes were buffered by 200ft to identify general corridors and assigned moderate priority (3) and routes overlapping areas with dense population were assigned additional priority high (4) and very high (5) using natural breaks classification.</p>	<p>Anchor Institutions - Businesses with greater than 1000 employees.</p> <p>Employment Centers - Centroids of areas with high density of businesses of greater than 50 and less than 1000 employees</p> <p>Population Centers - Centroids of block groups with greater than 100 people</p> <p>New Orleans Walkable Network - Streets and paths with functional class greater than 3</p>	<p>ESRI Business analyst business locations</p> <p>ESRI Business analyst block groups</p> <p>Street Map Premium (2015)</p>
		Connect People to Essential Services	10%	<p>A primary goal in the Resilient New Orleans Strategic Vision Plan is transform city systems to better connect people employment and essential services. This model identifies key corridors that connect people to essential services.</p> <p>Using Network Analyst Closest facility tool, we identified the most direct routes with potential for active transportation demand for the following key essential service destinations: 1) from center of block group with greater than 100 people to grocery stores, 2) from center of block groups with greater than 100 people to pharmacies, 3) from the center of block groups with greater than 100 people to daycare facilities, 4) from the center of block group with greater than 100 people to doctor offices, and 5) from center of block groups with greater than 100 people to hospitals. All routes were buffered by 200ft to identify general corridors and assigned moderate priority (3). Corridors with more overlap were assigned additional priority high (4) and very high (5) using natural breaks classification.</p>	<p>Grocery Stores NAICS = 445110 and employee number >5</p> <p>Pharmacies</p> <p>Daycare Facilities</p> <p>Dr Offices</p> <p>Hospitals</p> <p>Population Centers - Centroids of block groups with greater than 100 people</p> <p>New Orleans Walkable Network - Streets and paths with functional class greater than 3</p>	<p>ESRI Business analyst business locations</p> <p>NOLA Open Data</p> <p>ESRI Business analyst block groups</p> <p>Street Map Premium (2015)</p>
		Connect Tourists to Tourist Destinations	5%	<p>New Orleans has a thriving tourist industry and ensuring safe walkable/bikeable paths to major tourist destinations is a key component of Resilient New Orleans Plan. This model identifies key corridors that connect people key cultural facilities used by tourists .</p> <p>Using Network Analyst Closest facility tool, we identified the most direct routes with potential for active transportation demand from hotels to key cultural facilities. Additional routes where major arterials entered into and traversed key historic districts. All routes were buffered by 200ft to identify general corridors and assigned moderate priority (3). Corridors with more overlap were assigned additional priority high (4) and very high (5) using natural breaks classification.</p>	<p>Cultural Facilities NAICS = 7121</p> <p>Key Historic Districts</p> <p>Population Centers - Centroids of block groups with greater than 100 people</p> <p>New Orleans Walkable Network - Streets and paths with functional class greater than 3</p>	<p>ESRI Business analyst business locations</p> <p>NOLA Open Data</p> <p>ESRI Business analyst block groups</p> <p>Street Map Premium (2015)</p>

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		Access to Public Schools	10%	<p>A primary goal in the Resilient New Orleans Strategic Vision Plan is to provide transportation options that improve getting students to schools. This model identifies key corridors that connect middle and high school students from nearest bus stops as well as areas within 10 minute walk of existing schools.</p> <p>Using Network Analyst Closest facility tool, we identified the 5 most direct routes from existing middle and high schools to the nearest bus stops. All routes were buffered by 200ft to identify general corridors students might use to get from public transit to their school and assigned very high priority (5). A ten minute walk from every school was then derived to identify opportunities for transportation improvement for younger students walking and biking to school and assigned high priority value (4).</p>	<p>Schools Public Transit (bus stops) New Orleans Walkable Network - Streets and paths with functional class greater than 3</p>	<p>NOLA Open Data NOLA GIS Department ESRI Business analyst block groups Street Map Premium (2015)</p>
		Gaps in Park Access	10%	<p>Connecting neighborhood residents to parks and open space for walking, jogging, and bicycling is a key goal for promoting active and healthy lifestyles. The Trust for Public Land's ParkScore® index is based on the percentage of the population living within a ten-minute (half-mile) walk of a public park. The half-mile is defined as entirely within the public road network and uninterrupted by physical barriers such as highways, train tracks, rivers, and fences. TPL's mapping technology identifies which neighborhoods and demographics are underserved by parks and how many people are able to reach a park within a ten-minute walk. org.</p>	TPL ParkScore	The Trust for Public Land
		Gaps in Existing Bike Network	10%	<p>New Orleans currently maintains over 100 miles of bikeways. It is considered a bike-friendly town, and the city is dedicated to further improving the bicycle network. This model prioritizes potential routes corridors that could connect gaps in the existing bike network as well corridors that would connect the network to planned bike stations.</p> <p>Using Network Analyst Closest facility tool, we identified the most direct routes that would connect gaps in the existing bike network. This model was re-run using scaled cost for routes that did not provide access to employment centers. All routes were buffered by 200ft to identify general corridors and assigned moderate priority (3). Corridors with more overlap were assigned additional priority high (4) and very high (5) using natural breaks classification.</p>	<p>Existing Bike Network Routes provide access to employment centers New Orleans Walkable Network - Streets and paths with functional class greater than 3</p>	<p>NOLA Open Data CT01: TPL modeling results (2017) Street Map Premium (2015)</p>
		Gaps in Public Transportation	15%	<p>Access to reliable and affordable public transportation is essential to enhancing quality of life as well as reducing green house emissions for a city's population. This model prioritizes areas where city residents are more than a 10 minute walk from available public transportation as well as areas where there is a need for additional public transportation.</p> <p>Areas more than a 10 minute walk from public transportation stop were assigned a very high priority value (5). Areas within a 10 minute walk but</p>	<p>Public Transit (bus stops) New Orleans Walkable Network - Streets and paths with functional class greater than 3</p>	<p>NOLA GIS Department ESRI Business analyst block groups Street Map Premium (2015)</p>

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		Pedestrian Safety	5.0%	Improving pedestrian and bicycle safety is key objective of New Orleans complete street policy. In a recent report (Dangerous by Design), Louisiana ranked as the 3rd most dangerous state for pedestrian safety and New Orleans was the 38th worst metropolitan area for bicycle and pedestrian safety. This model identifies areas where risk of collision is highest based on past collision locations. Hot spots of pedestrian collisions within the neighborhood of 1/8 mile from 2010 to 2015 were derived using a kernel density where added value was given to accidents that resulted in fatalities and serious injury. Priority value assigned using a natural breaks classification.	Pedestrian Collisions	City of New Orleans
		Bicycle Safety	5.0%	Improving pedestrian and bicycle safety is key objective of New Orleans complete street policy. In a recent report (Dangerous by Design), Louisiana ranked as the 3rd most dangerous state for pedestrian safety and New Orleans was the 38th worst metropolitan area for bicycle and pedestrian safety. This model identifies areas where risk of collision is highest based on past collision locations. Hot spots of bicycle collisions within the neighborhood of 1/8 mile from 2010 to 2015 were derived using a kernel density where added value was given to accidents that resulted in fatalities and serious injury. Priority value assigned using a natural breaks classification.	Bicycle collisions	City of New Orleans
		Canal Priorities	10%	This model prioritizes open drainage canal that provide value for connecting gaps in the existing bike network. Using Network Analyst Closest facility tool, we identified the most direct routes along open canals that connect gaps in the existing bike network. All routes were buffered by 200ft to identify general corridors and assigned very high priority (5).	Canals New Orleans Walkable Network - Streets and paths with functional class greater than 3	City of New Orleans Street Map Premium (2015)

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Critical Infrastructure	15%					
		Density of Essential Emergency Services	14.0%	<p>This model assigns critical infrastructure risk based upon density of locations of essential service facilities. Essential Services facilities include evacuation pick-up points shelters, police stations, fire stations, EMS stations, and hospitals.</p> <p>Kernel Density of essential service facilities was derived using 1/4 mile (equivalent to 5 minute walk) circular radius. The resulting density raster was broken into priority classes using slice tool and a natural breaks classification using scale of 0 to 5.</p>	<p>Evacuation Pick-up Points Police Stations Fire Stations EMS Stations Private Ambulatory Systems</p>	<p>City of New Orleans ESRI Business Analyst</p>
		Density of Key Transportation Infrastructure	14.0%	<p>This model assigns critical infrastructure risk based upon density of locations of key transportation infrastructure. Key transportation infrastructure includes evacuation routes, ports, and bridges,</p> <p>Kernel Density of key transportation infrastructure including ports and the entrance and exits of bridges was derived using 1/4 mile (equivalent to 5 minute walk) circular radius. The resulting density raster was broken into priority classes using slice tool and a natural breaks classification using scale of 0 to 5. A Kernel Density of evacuation routes was derived using 1/8 mile search radius. The resulting line density raster was broken into priority classes using slice tool and a natural breaks classification using scale of 0 to 5. The point and line priority rasters were combined using equal weights.</p>	<p>Ports Bridges Evacuation Routes</p>	<p>City of New Orleans ESRI Business Analyst</p>
		Density of Key Sewer and Water Infrastructure	14.0%	<p>This model assigns critical infrastructure risk based upon density of locations of utility and communication facilities. Utility and communication facilities include pump stations It does not include power substations. The point locations were unavailable due to security concerns.</p> <p>Kernel Density of utility and communication facilities was derived using 1/4 mile (equivalent to 5 minute walk) circular radius. The resulting density raster was broken into priority classes using slice tool and a natural breaks classification using scale of 0 to 5.</p>	<p>SS Pump Stations SW Pump Stations Wastewater Treatment Plants</p>	<p>SWB</p>
		Density of Cultural and Institutional Facilities	14.0%	<p>This model assigns critical infrastructure risk based upon density of locations of institutional facilities. Institutional facilities include colleges, universities, historic facilities, and museums.</p> <p>Kernel Density of institutional facilities was derived using 1/4 mile (equivalent to 5 minute walk) circular radius. The resulting density raster was broken into priority classes using slice tool and a natural breaks classification using scale of 0 to 5.</p>	<p>Colleges Universities Historic Facilities Museums Cultural Nonprofits Cultural Businesses</p>	

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		Density of High Potential Loss Facilities	14.0%	<p>This model assigns critical infrastructure risk based upon density of locations of high potential loss facilities. High potential loss facilities include flood gates, hydraulic section points, locks, pump stations, other structures, water treatment plant, and sewer treatment plant</p> <p>Kernel Density of high potential loss facilities was derived using 1/4 mile (equivalent to 5 minute walk) circular radius. Line Density of high potential loss facilities was derived using 1/8 mile radius. Density layers were combined and the resulting combined density raster was broken into priority classes using slice tool and a natural breaks classification using scale of 0 to 5.</p>	<p>Floodgates Hydraulic Section Points Locks Pump Stations Other Leve Structures Water Treatment Plant Sewer Treatment Plant</p>	
		Density of Dependent Population Facilities	14.0%	<p>This model assigns critical infrastructure risk based upon density of locations of dependent population facilities. Dependent Population facilities include long-term care facilities, nursing homes, daycare facilities, and prisons</p> <p>Kernel Density of high potential loss facilities was derived using 1/4 mile (equivalent to 5 minute walk) circular radius. The resulting density raster was broken into priority classes using slice tool and a natural breaks classification using scale of 0 to 5.</p>	<p>Long-term care facilities Nursing home and Elderly care facilities Daycare facilities Prisons</p>	
		Density of Other Emergency Facilities	14.0%	<p>This model assigns critical infrastructure risk based upon density of locations of other emergency facilities. Other emergency facilities include community centers and other medical facilities</p> <p>Kernel Density of high potential loss facilities was derived using 1/4 mile (equivalent to 5 minute walk) circular radius. The resulting density raster was broken into priority classes using slice tool and a natural breaks classification using scale of 0 to 5.</p>	<p>Community Centers</p>	

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Health	15%					
		Respiratory Illness	14.0%	<p>This model assigns health vulnerability based upon areas with a high percentage of active clinic patients that have been seen for respiratory illness</p> <p>The input data is from Louisiana Public Health Institute.</p> <p>Quantile Breaks are used to determine 6 classes with the top 3 being classified as Very High Vulnerability >6% (5) High Vulnerability 5.0 - 6% (4) and Moderate Vulnerability 4.2 - 5.0%(3).</p>	Active Patient Population	Louisiana Public Health Institute
		Kidney Disease	14.0%	<p>This model assigns health vulnerability based upon areas with a high percentage of active clinic patients that have been seen for kidney disease</p> <p>The input data is from Louisiana Public Health Institute.</p> <p>Quantile Breaks are used to determine 6 classes with the top 3 being classified as Very High Vulnerability >2.8% (5) High Vulnerability 2.2- 2.8% (4) and Moderate Vulnerability 1.8 - 2.1%(3).</p>	Active Patient Population	Louisiana Public Health Institute
		Cardiovascular Disease	14.0%	<p>This model assigns health vulnerability based upon areas with a high percentage of active clinic patients that have been seen for cardiovascular disease</p> <p>The input data is from Louisiana Public Health Institute.</p> <p>Quantile Breaks are used to determine 6 classes with the top 3 being classified as Very High Vulnerability >5.4% (5) High Vulnerability 4.5 - 5.4% (4) and Moderate Vulnerability 3.8 - 4.5%(3).</p>	Active Patient Population	Louisiana Public Health Institute
		Diabetes	14.0%	<p>This model assigns health vulnerability based upon areas with a high percentage of active clinic patients that have been seen for diabetes.</p> <p>The input data is from Louisiana Public Health Institute.</p> <p>Quantile Breaks are used to determine 6 classes with the top 3 being classified as Very High Vulnerability >6.7% (5) High Vulnerability 5.7 - 6.7% (4) and Moderate Vulnerability 4.8 - 5.7%(3).</p>	Active Patient Population	Louisiana Public Health Institute

New Orleans Climate Smart Cities

Model Criteria May 22, 2017

Goal	Goal Weights	Criteria	Criteria Weights	Methodology	Data (Description, Date, Resolution)	Data Source
		Hypertension	14.0%	<p>This model assigns health vulnerability based upon areas with a high percentage of active clinic patients that have been seen for hypertension.</p> <p>The input data is from Louisiana Public Health Institute.</p> <p>Quantile Breaks are used to determine 6 classes with the top 3 being classified as Very High Vulnerability >23% (5) High Vulnerability 20 - 23% (4) and Moderate Vulnerability 18.3 - 20%(3).</p>	Active Patient Population	Louisiana Public Health Institute
		Cerebrovascular Disease	14%	<p>This model assigns health vulnerability based upon areas with a high percentage of active clinic patients that have been seen for cerebrovascular disease</p> <p>The input data is from Louisiana Public Health Institute.</p> <p>Quantile Breaks are used to determine 6 classes with the top 3 being classified as Very High Vulnerability >1.6% (5) High Vulnerability 1.2 - 1.6% (4) and Moderate Vulnerability 1.0 - 1.2%(3).</p>	Active Patient Population	Louisiana Public Health Institute



New Orleans Climate Smart Cities

Model Criteria
May 22, 2017

Goal	Goal Weights	Criteria	Criteria Weights	Methodology	Data (Description, Date, Resolution)	Data Source
Model Overlays	N/A					
		Study Area				
		Parcels				
		Protected Lands				
		Streams and Waterbodies				
		Major Roads				
		Imagery				