

Climate Equity Fellowship Engagement Report



CITY OF SAN ANTONIO
OFFICE OF SUSTAINABILITY

USDN | urban sustainability
directors network



Executive Summary

➤ About the Fellowship

The City of San Antonio, through the support of the Urban Sustainability Directors Network (USDN) hosted a Climate Equity Fellow whose focus was providing support for the incorporation of equity into the Climate Action and Adaptation Plan (CAAP) engagement process. The 12-week fellowship was strategically scheduled at a midway point of the CAAP planning and engagement process. Its main objective was to provide a focus on equity that would supplement the CAAP Engagement Plan.

The objectives of the Climate Equity Fellow were to:

1. Analyze and assess demographics to identify engagement gaps and 3-5 most impacted demographics in the City of San Antonio

2. Conduct a community scan of target areas identifying organizations that serve those communities directly and are trusted messengers.

3. Engage community members and provide recommendations for continued engagement for the CAAP. This well-founded data driven plan was developed as an effort to ensure that the CAAP's goals, priorities, mitigation and adaptation strategies are reviewed and established with an equity lens.

➤ Identifying communities for Engagement

While climate change affects everyone, not all communities are impacted equally. ecoAmerica notes that climate impacts "disproportionately impact many communities like children, older adults, those with preexisting health conditions, the poor, homeless, and people living in high risk areas"¹. These individuals experience a considerable burden due to environmental changes and have a reduced capacity to prepare for them.

The first step included conducting a demographic scan of the City of San

Antonio utilizing various indicators to identify the communities in the city that are most vulnerable to climate change and action. The six indicators include: Distressed Communities Index score, life expectancy, tree canopy, urban heat island, flood risk and race. The data for these indicators was obtained through public information sources including: SA2020, SA Tomorrow Sustainability Plan, the Health Collaborative, Community Information Now, and the Economic Innovation Group. After assessing current figures, we found that there are various communities in the city in the central, east, near northwest and southside in which more than one factor was present and where intersectionality exists.

The result of our analysis identified Council Districts: 1, 2, 3, 4 and 5 as the most vulnerable areas under these factors and were therefore our engagement target zones. These districts demonstrate higher levels of distress, high percentages of minority populations, lower ranges of life expectancy and are situated in areas where there is higher risk of flooding, higher temperatures in the urban heat island and significant tree canopy gaps. Within these districts there was an added focus on zip codes 78207, 78204, 78221, 78201 and 78211 that were identified in multiple indicators.

➤ Community Scan

Once we identified the areas of the city where we would conduct added engagement opportunities, we completed a community scan that included local community resources and trusted messengers. We created a database that included gathering places, community centers, cooling centers, libraries and local organizations that we could collaborate with to directly engage community members. Within this database we developed a tracking tool that would allow us to record who we were collaborating with and the areas that we would be engaging in.

➤ **Community Engagement**

The community scan database allowed us to adequately keep track of the entities and community members we were collaborating with, as well as what communities we were engaging. We kept a timeline throughout the fellowship for the various community engagement events and made sure to refer back to our data periodically to ensure we were working in the identified zip codes and districts.

Through community engagement we promoted awareness for the CAAP planning and implementation, created meaningful engagement experiences, build a pipeline for community members to easily provide feedback and fostered trust between communities and the City of San Antonio. Residents in these targeted areas participated in community roundtables, neighborhood association meetings, engagement at local libraries, and senior and community centers.

Climate Equity Engagement

➤ **Methodology: Identifying Communities for Engagement**

To understand the communities in the City of San Antonio at higher risk to climate changes we narrowed our scope to include: distress community scores, life expectancy, tree canopy areas, urban heat island and flood risk. Data related to race was used as an additional indicator to identify areas of concentrated minority populations, and their relation to other factors.

The data for these indicators was obtained through public information sources including: SA2020, SA Tomorrow Sustainability Plan, the Health Collaborative, Community Information Now, and the Economic Innovation Group. Analysis of this data included identifying recurring zip codes and their corresponding council district for each data set, and observing where intersections of these indicators exist.

Each indicator was assessed individually to determine the areas in the city where the factors were most prevalent (i.e. higher urban heat temperatures, lower life expectancy ranges) and the data was then studied for patterns or trends to identify areas in which intersections exist. We reviewed recurring zip codes with all indicators considered, with and without the race data. Communities that are within these identified areas experience multiple layers of vulnerability such as living in the middle of the urban heat island, but also have limited ability to adapt to increased temperatures, flooding, and other environmental fluctuations.

Distressed Communities Index

The Distressed Communities Index is a rating system that combines seven inclusive metrics including: poverty rates, median income ratio, no high school diploma, housing vacancy rates, adults not working, change in employment and change in businesses by zip code². Data for the highest DCI in the city can be seen in Figure 1.

Life Expectancy

There are disparities in the life expectancy of San Antonio residents in relation to where they reside³. The differences range from 90 years or older in the far northwest and southeast side to 70-74 years in the eastside and near westside a clear representation of added vulnerability⁴ (Figure 3).

Tree Canopy

Trees produce oxygen, help filter out harmful air pollution, and play a critical role in reducing urban heat island effects⁵. Trees in an urban setting can support a community's ability to withstand and manage climate related changes, and strengthens community resilience⁶. We observed maps for the San Antonio tree canopy and identified gaps in area near the east, south, central and near northwest sides.

Urban Heat Island

The use of the urban heat island as an indicator assist us in identifying areas in which the community will have enhanced vulnerability to extreme heat events based on “increased exposure and higher sensitivity [or restricted ability to respond] to those events”⁷. Residents that live within these areas will experience increased risk regarding air pollution levels, heat-related illnesses, and higher energy demand to maintain A/C cooling. The urban heat island graphic for the City of San Antonio reflects the highest temperatures in downtown and correlates to the tree canopy (Figure 5).

Flood Risk

Flood zones are geographic areas that FEMA has defined according to varying levels of flood risk. For our purposes we analyzed FEMA 100-year flood zones, and identified areas in the city that have a higher propensity to flood⁹.

Race

Race is described as a primary indicator of vulnerability to environmentally-induced negative health outcomes and is considered a characteristic more representative than class¹⁰. For this project race was used as an identifier to understand areas where there are high concentrations of minority populations. Overall the City of San Antonio has a population of 63.8% Hispanic, but there are areas where Hispanics encompass 90% of that district¹¹.

> Target Demographics

The indicators we analyzed helped us identify the areas in San Antonio where residents are most vulnerable to climate change and action. We were able to determine that Council Districts: 1, 2, 3, 4 and 5 are the most vulnerable areas considering these factors. Data for these districts reflects higher levels of distress, lower ranges of life expectancy, higher risk of flooding, higher temperatures in the urban heat island and gaps in the tree canopy. In analyzing the data we found

that zip codes 78207, 78204, 78221, 78201 and 78211 recurred in multiple indicators, and were also within these council districts.

The areas that we identified were mostly within the inner 410 loop and located in the near Northwest, Southside, and East Side of the city. Within these areas we examined race data and found that there was a high concentration of minority populations. We considered this in our next steps when conducting a community scan that would be culturally inclusive.

> Community Scan

The community scan was invaluable in understanding the organizations and trusted messengers that were already present in these communities. In doing this we were looking to identify gathering places, organizations, city public facilities, trusted messengers and frontline people we could collaborate with to directly engage with residents. The database allowed us to effectively track the organizations and people we reached out to, and document how we could collaborate during the fellowship and beyond.

Within the database we developed a tracking tool that allowed us to record events and areas that were engaged. The community database was a valuable tool throughout this process, and grew as we engaged with community members who gave us leads for additional organizations to collaborate with and one that will continue to develop as the CAAP engagement plan continues.

> Community Engagement

The community scan we conducted facilitated connecting with organizations, community and senior centers, libraries and neighborhood associations serving underrepresented areas. Through our engagement we were able to have personalized conversations with community members, answer questions and receive their feedback on their experiences and visions for a climate ready San Antonio.

The engagement events included public community roundtables, resource tables in city facilities including libraries, seniors and community centers, district-wide health fairs, and neighborhood association meetings. At each of the over twenty engagement events we had direct conversations with residents and adjusted for each audience. The audiences we spoke to were diverse and included families, seniors, college aged community members, Spanish speaking residents and members of the homeless community. With each of these audiences we adjusted to hold conversations, capture their feedback and answer any questions regarding sustainability, climate change, climate action and resilience. At all small events there was a person part of the organization that would introduce us, we would briefly summarize the CAAP and open up the rest of the event to hold quality conversations centering around community members questions and feedback.

As part of our engagement approach we canvassed and set up resource tables at numerous libraries and community centers to promote awareness for CAAP and provide information regarding the Metropolitan Health Heat Plan, Neighborhood and Housing Services Owner Occupied Rehabilitation Programs, and CPS programs, including Casa Verde and Senior Affordability initiatives. In addition to this we were present for well-attended district and organizational events to promote the CAAP and provide information regarding available resources.

Our smaller events included neighborhood association meetings where we engaged members on goals, priorities, and strategies for CAAP. During these meetings we were able to fully discuss the plan and receive valuable feedback. We also engaged community members through small focus groups where we discussed strategies developed to date, and received feedback on their experience and vision for a Climate Ready San Antonio.

➤ **Community Feedback**

The community engagement events we conducted helped us build a pipeline for residents so that they could easily provide feedback. Throughout this process we noticed reoccurring concerns and issues including:

- Extreme heat
- Individual limited resources
- Public transportation infrastructure
- Climate impacts being felt now
- Health impacts
- Concerns for environmental contamination
- New development fears
- Access to environmental education/outreach
- Flooding

One of the most common concerns we captured was the inability of some community members to meet their basic needs. Many of our discussions centered around the inability to afford proper air conditioning in their home, whether it be due to repairs or the burden of utility costs. These conversations took place in cooling centers, including libraries and community centers, where residents would at times spend all day to stay cool. Some residents talked about having to leave their homes to spend days at family members' homes and how there are climate impacts being felt now, mostly surrounding extreme heat. For many this tied in to health concerns as they would oftentimes be forced to withstand the heat and would consequently experience heat strokes.

For the homeless individuals that we engaged heat strokes are a chronic burden, caused by lack of access to shelter and experiencing extreme weather directly. Many of the individuals we spoke to relied on shade from trees, and shading structures for relief from the heat, and had difficulty accessing water resources. Water for them was described as limited, and at times unattainable, as many relied on

public water fountains inside libraries, and other facilities. When these facilities are closed most homeless individuals described trying to obtain water as best they can, or go without it. To withstand heat during these times both individuals from the homeless community and community residents relied on public transportation to stay cool.

When discussing public transportation community members acknowledged that it was great way to reduce our carbon footprint and be more environmentally conscious. Many residents shared their experience using public transportation and having to wait at bus stops without proper sheltering. The need for proper shade structures and the easy accessibility to bus stops was a primary concern for residents especially when discussing extreme weather. They shared that access to sidewalks, shade, and water would make their commute easier and encourage them to continue using public transportation.

In addition to these, residents shared their concerns for environmental contamination stemming from experiences with littering and the status of their neighborhoods. Families shared their concerns with walking in their neighborhood due to lack of upkeep, and how they would like improved access to environmental education for their children and themselves. They stressed the importance of teaching children early and addressing issues in their neighborhoods. When discussing how to address issues in their community, residents shared additional concerns for new development in their area, which they saw as a potential source of flooding and their fear that if their neighborhood is developed they would eventually be unable to afford their home and be displaced.

Through these invaluable discussions we were able to not only promote the CAAP

but truly capture the lived experiences of diverse communities that were supportive of the plan and were happy to share their feedback.

> Recommendations

The community feedback that we received throughout this process allowed us to compile a list of recommendations for the CAAP moving forward.

Community members recommend:

- **Improved access to public transportation**, sidewalks and bus shelters
- **Access to basic needs**, including air conditioning and weatherization assistance
- **Protection and shelter from heat**
- **Access to free drinking water**, at bus stops and throughout the city
- **Increased access to cooling centers**, that can also provide additional resources
- **Neighborhood improvement**, without displacements and protection of increase cost
- **Improved access to environmental education** and outreach for all

To ensure that all community members have an opportunity to share their experiences and feedback we scheduled engagement events in diverse communities well past the fellowship. Hosting these additional engagement opportunities, and ensuring that they are easily accessible to all residents, will allow for the continued promotion of the CAAP, local resources and guarantee that this continues to be a community driven plan.

Acknowledgements

THIS REPORT WAS PREPARED BY

Iris F. Gonzalez
2018 USDN EDI Fellow



Douglas Melnick, AICP, CNU-A, ISSP-SA
Chief Sustainability Officer

EDITED BY

Eloísa Portillo-Morales, MBA,
EIT, LEED-GA, CNU-A

Eloísa Portillo-Morales, MBA, EIT,
LEED-GA, CNU-A
Sustainability Planning Manager

Lisa Lin, LEED AP BD+C
Climate Program Manager

THROUGH THE GENEROUS SUPPORT OF

Golda M. Obinzu, PE, CEM, LEED AP BD+C
Energy Management Manager

Christopher Wilcut, CEM
Energy Management Senior Analyst



Julia Murphy
Sustainable Transportation Program
Manager

Cynthia Dittrich
Department Fiscal Administrator

SPECIAL THANKS TO

Carmen Almaguer
Executive Secretary

Desiree Williams-Rajee, Kapwa
Consulting

ABOUT THIS REPORT

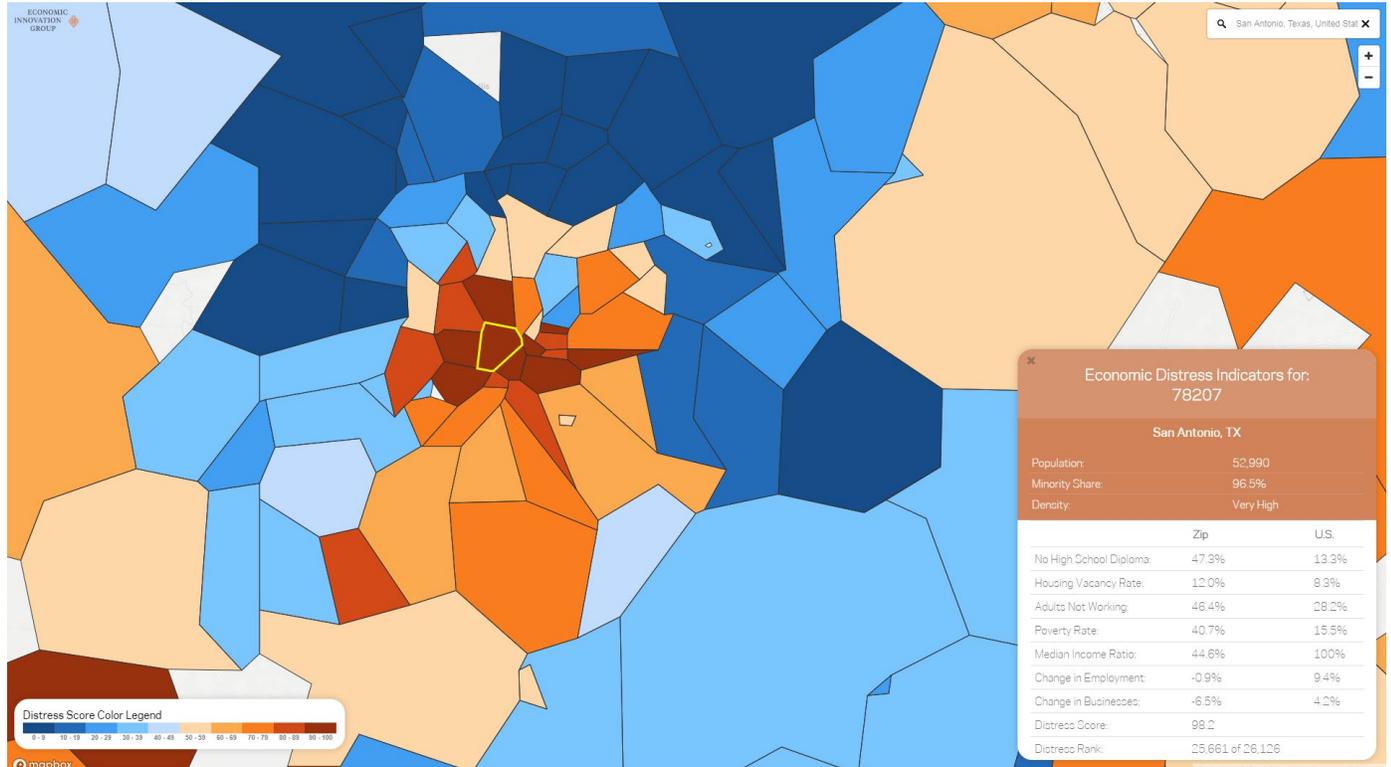
This report was created as a result of the partnership of the City of San Antonio and the Urban Sustainability Directors Network. Through the USDN Equity, Diversity and Inclusion Fellowship Grant program the City of San Antonio obtained the support of a

summer equity fellow, Iris F. Gonzalez, to focus on equitable engagement throughout the Climate Action and Adaptation Plan process. Iris F. Gonzalez conducted an

analysis of City of San Antonio demographics and presents her findings and next steps for engagement in this report

Appendix

(Figure 1) Distressed Communities Index



"2017 DCI Map - National Zip Code Map." Economic Innovation Group

(Figure 2) Race

Districts 1-10, Race & Ethnicity

	White	Black	Hispanic	Asian	American Indian	Other	2+ Races
	% (MOE)	% (MOE)	% (MOE)	% (MOE)	% (MOE)	% (MOE)	% (MOE)
District 1	22.4% (±0.8%)	2.9% (±0.5%)	72.6% (±1.3%)	1.3% (±0.3%)	0.1% (±0.1%)	0.1% (±0.1%)	0.7% (±0.2%)
District 2	18.8% (±0.9%)	21.4% (±1.0%)	55.8% (±1.6%)	1.8% (±0.4%)	0.2% (±0.1%)	0.2% (±0.1%)	1.9% (±0.4%)
District 3	11.9% (±0.7%)	4.2% (±0.5%)	82.6% (±1.0%)	0.5% (±0.2%)	0.2% (±0.1%)	0.1% (±0.1%)	0.5% (±0.2%)
District 4	12.3% (±0.8%)	4.5% (±0.9%)	81.2% (±1.2%)	1.0% (±0.3%)	0.1% (±0.1%)	0.0% (±0.0%)	0.9% (±0.2%)
District 5	4.8% (±0.5%)	0.8% (±0.2%)	93.8% (±0.7%)	0.3% (±0.2%)	0.0% (±0.1%)	0.1% (±0.1%)	0.2% (±0.1%)
District 6	20.9% (±1.0%)	7.7% (±0.9%)	67.1% (±1.5%)	2.4% (±0.6%)	0.2% (±0.2%)	0.1% (±0.1%)	1.7% (±0.4%)
District 7	25.6% (±0.9%)	5.2% (±0.7%)	65.1% (±1.2%)	2.8% (±0.5%)	0.1% (±0.1%)	0.2% (±0.1%)	1.0% (±0.2%)
District 8	40.4% (±1.0%)	6.4% (±0.7%)	43.6% (±1.3%)	7.5% (±0.7%)	0.1% (±0.1%)	0.1% (±0.1%)	1.9% (±0.4%)
District 9	54.6% (±1.1%)	3.8% (±0.6%)	35.4% (±1.3%)	4.0% (±0.5%)	0.3% (±0.1%)	0.2% (±0.1%)	1.7% (±0.4%)
District 10	46.2% (±1.2%)	8.3% (±0.8%)	40.9% (±1.3%)	2.1% (±0.4%)	0.2% (±0.1%)	0.2% (±0.2%)	2.0% (±0.4%)
COSA	24.8% (±0.5%)	6.7% (±0.4%)	63.8% (±0.6%)	3.0% (±0.2%)	0.1% (±0.1%)	0.1% (±0.1%)	1.4% (±0.3%)

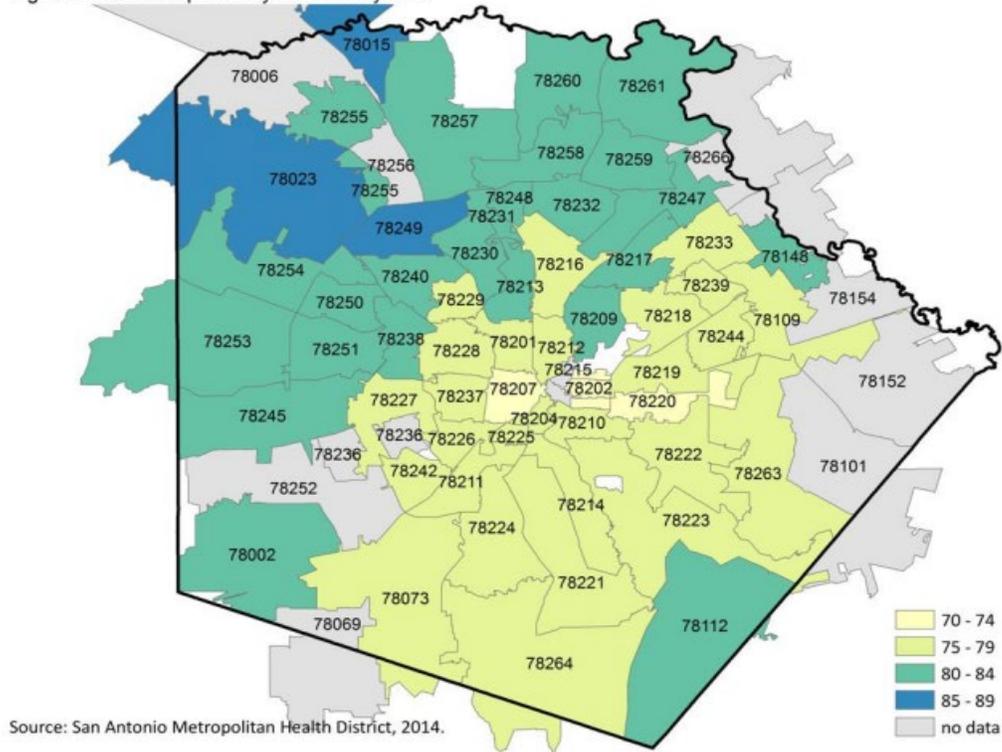
U.S. Census Bureau, American Community Survey (ACS) 5-Year and 1-Year Estimates, Table DP05.

(Figure 3) Life Expectancy

SA:

Life Expectancy by Zip Code

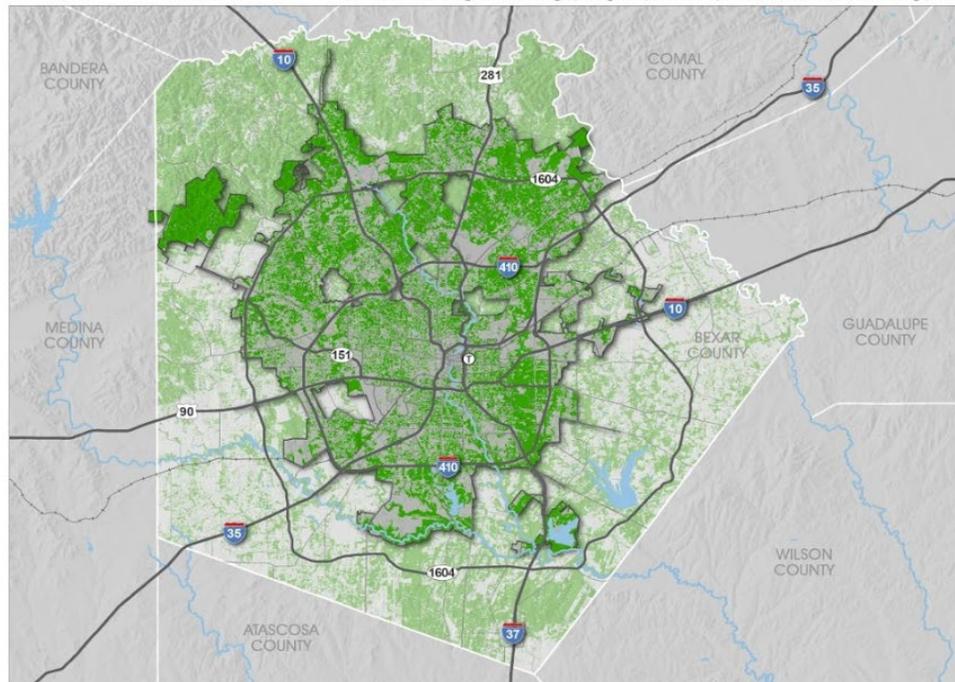
Figure 5.25 Life expectancy at birth in years



(Figure 4) Tree Canopy



Source: National Agriculture Imagery Program (NAIP; 2014), 1 meter, Near Infrared; Zhang (2001)



Legend

- City of San Antonio
- City Limits
- Transportation
- Major Highways
- Arterials
- Tree Canopy
- Remotely Sensed Tree Canopy at 1 meter Resolution

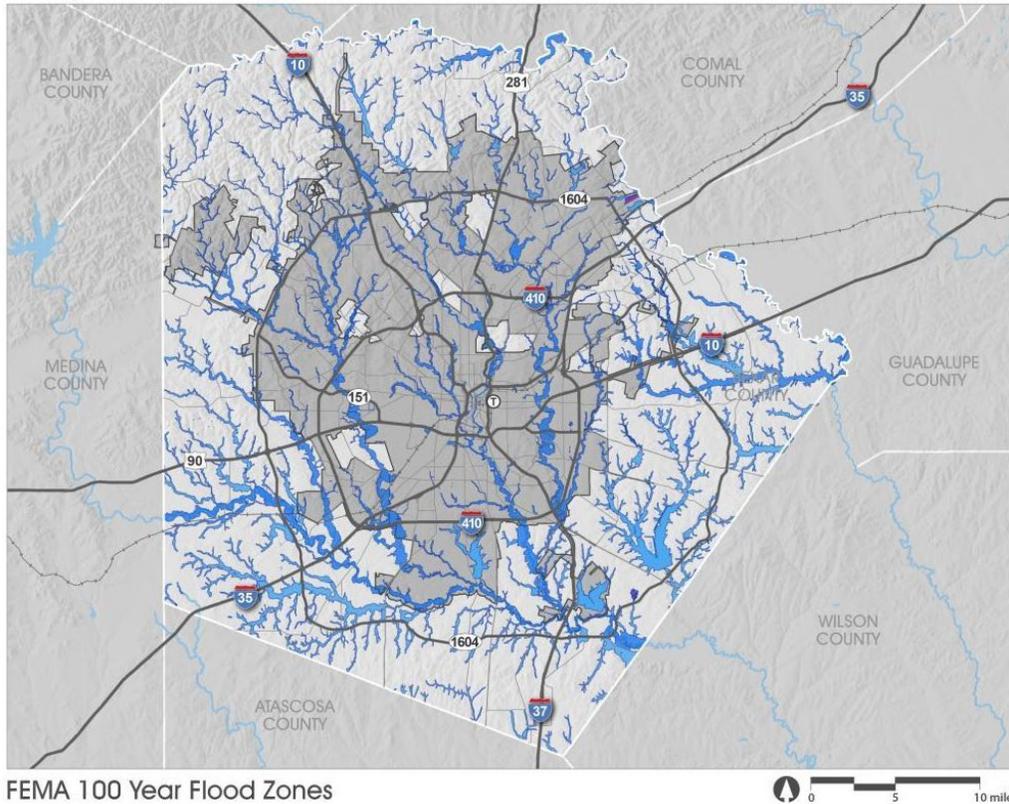
Tree Canopy



(Figure 5) Flood Risk



Source: FEMA



Legend

- City of San Antonio
- City Limits
- Transportation
- Major Highways
- Arterials
- FEMA 100 Year Flood Zones
- Zone A
- Zone AE
- Zone AH
- Zone AO



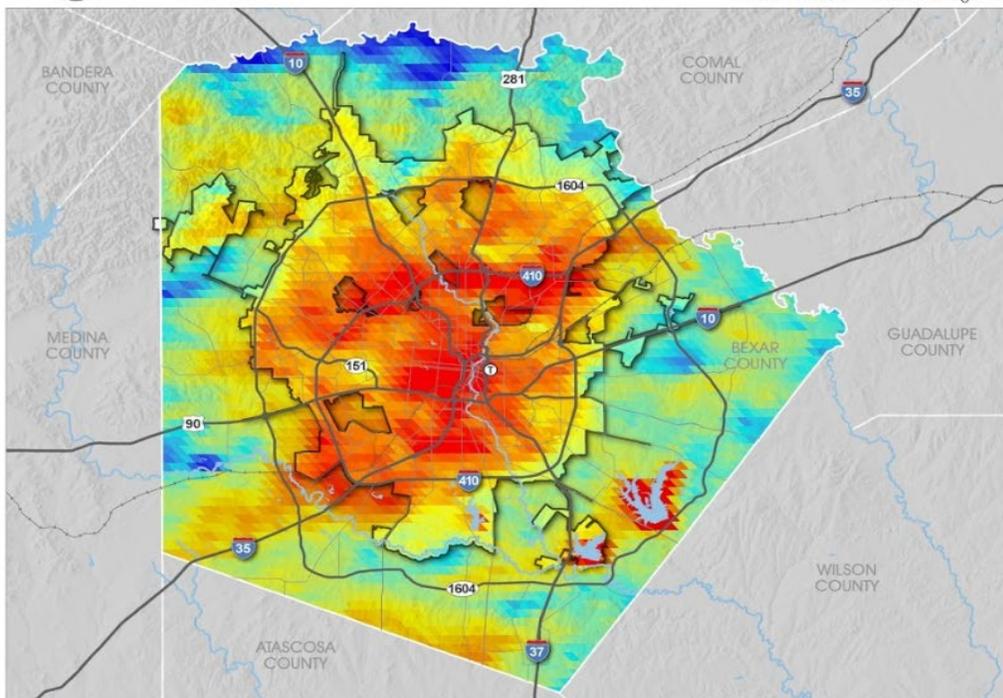
FEMA 100 Year Flood Zones



(Figure 6) Urban Heat Island



Source: NASA MODIS 11A2 LST Night 1km



Legend

- City of San Antonio
- City Limits
- Transportation
- Major Highways
- Land Surface Temperature (LST), Night of August 18, 2014
- 31 °C (-88 °F)
- Warmer
- Cooler
- 20 °C (-68 °F)



Urban Heat Island Effect



References

1. Fery, Paige and Speiser, Meighen ecoAmerica: 2017. Let's Lead on Climate
ecoAmerica Washington, D.C.
2. "2017 DCI Map - National Zip Code Map." Economic Innovation Group, eig.org/2017-dci-map-national-zip-code-map.
3. The Health Collaborative. (2016). 2016 Bexar County Community Health Needs Assessment Report. San Antonio, TX: The Health Collaborative.
4. The Health Collaborative. (2016). 2016 Bexar County Community Health Needs Assessment Report. San Antonio, TX: The Health Collaborative.
5. "Urban Green Spaces." World Health Organization, World Health Organization, 4 Aug. 2016, www.who.int/sustainable-development/cities/health-risks/urban-green-space/en/.
6. Safford, Hannah, et al. "Urban Forests and Climate Change." Urban Forests and Climate Change, www.fs.usda.gov/ccrc/topics/urban-forests-and-climate-change.
7. SA Tomorrow Sustainability Plan, 2016. Retrieved from:
<https://www.sasustainabilityplan.com>
8. SA Tomorrow Sustainability Plan, 2016. Retrieved from:
<https://www.sasustainabilityplan.com>
9. SA Tomorrow Sustainability Plan, 2016. Retrieved from:
<https://www.sasustainabilityplan.com>
10. Fery, P., Kobayashi, N., Speiser, M., Lake, C., and Voss, J. (2017). American Climate Metrics Survey: April 2018. Demographics in Focus: Latinos and African Americans. ecoAmerica and Lake Research Partners. Washington, DC
11. SA2020 Impact Report 2017: All Part of a Bigger Picture. SA2020 (2017).
www.sa2020.org/blog/sa2020_resources/2017-impact-report/.

References cont.

ecoAmerica. "June Talking Points." EcoAmerica, EcoAmerica, 7 June 2018, ecoamerica.org/now-available-june-talking-points/

Keleher, Terry. "Race Equity and Inclusion Action Guide." The Annie E. Casey Foundation, The Annie E. Casey Foundation, 2014, www.aecf.org/resources/race-equity-and-inclusion-action-guide/.

Tina Yuen, et al. "Guide to Equitable, Community-Driven Climate Preparedness Planning." Urban Sustainability Directors Network. 2017. Urban Sustainability Directors Network
www.usdn.org/uploads/cms/documents/usdn_guide_to_equitable_community-driven_climate_preparedness.

University of Wisconsin Population Health Institute. County Health Rankings Key Findings 2018.