



**TIDE  
TO TOWN**  
URBAN TRAIL SYSTEM

Rapid Health Impact Assessment  
of Savannah's Tide to Town Urban Trail System  
Georgia Tech School of City & Regional Planning  
Health Impact Assessment Course  
Spring 2020

# Authors and Faculty

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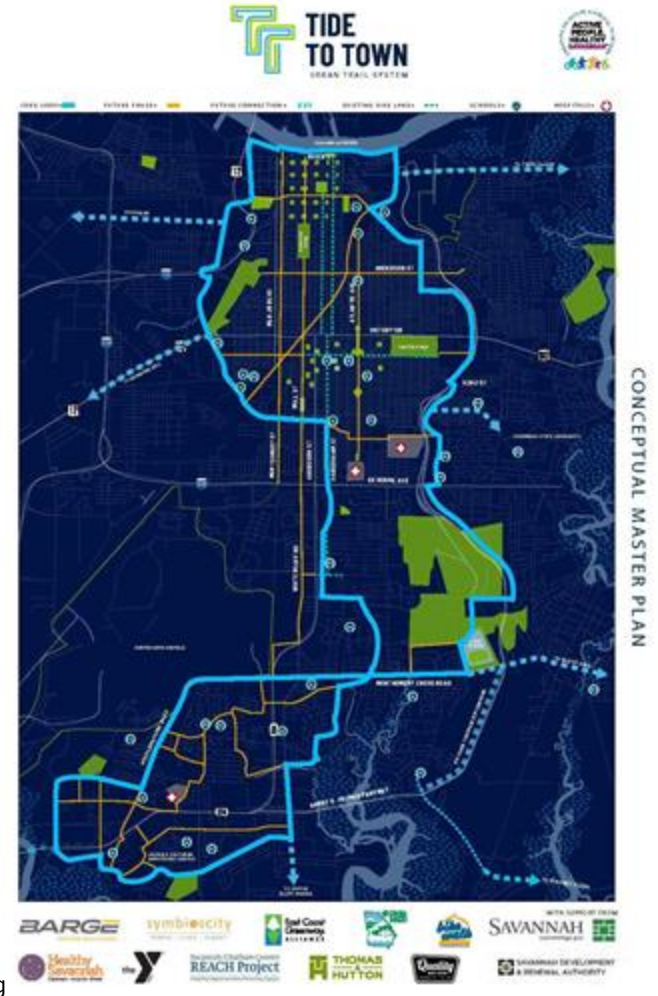
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# The Project - Tide to Town

- The Tide to Town project is a proposed 30 mile off-road trail that encircles the City of Savannah, Georgia.
- The trail is designed to connect with other on- and off-road trails within the city and county of Chatham, Georgia.
- The trail is proposed to connect residents and tourist to the city's marshes, wetlands, and waterways.
- The goal of the project is to mitigate public safety issues and transportation. As well as spur economic development and environmental mediation.



Link to project site: <https://tidetotown.org>

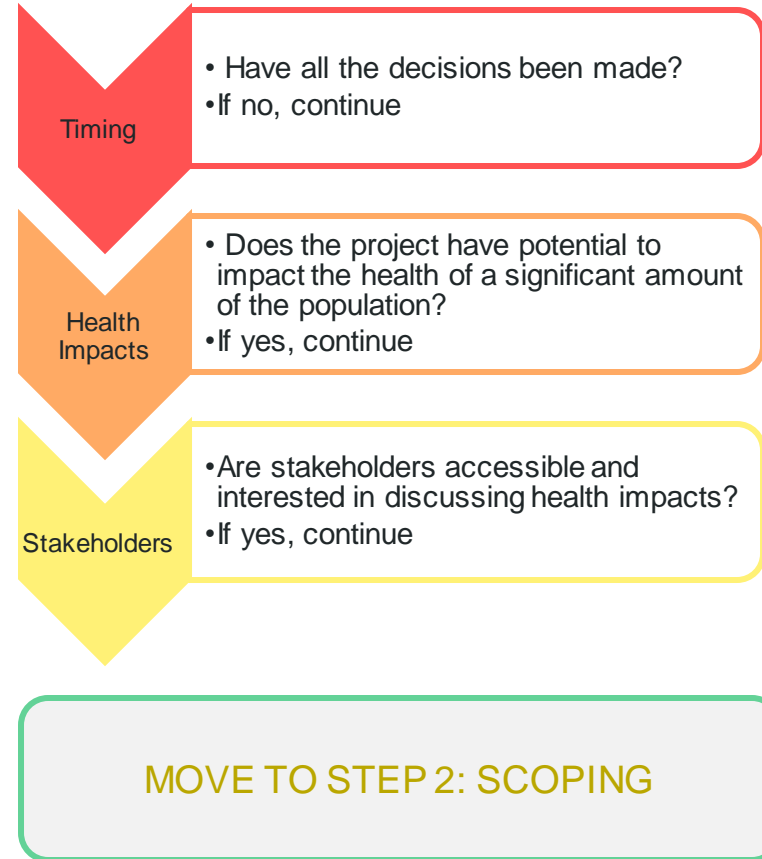
# Screening

## The purpose of screening:

Determine whether an HIA is needed (timely and value-add to decision making process)

## Questions answered in the process:

- What is the action?
- Determine project timeline – Is it too late or too early in the planning process?
- Health impacts – Does the action have potential to cause health consequences? Does it impact health inequality? Does it impact a significant portion of the population?
- Project overlap – Is the action already a health policy? Are there clear links between health and the action?
- Stakeholders – Is the community concerned about health? Is there opportunity to engage stakeholders and are they interested? Would the HIA influence the decisions of the action?



# Scoping

## **The purpose of scoping:**

Determine decision alternatives, health impacts, and geographic boundaries for analysis

## **The process used to scope this HIA:**

1. Assess peer reviewed literature to determine health impacts of trail projects
2. Review HIA's completed for trail projects
3. Implemented the *Human Impact Partners Health Impact Assessment Toolkit Scoping Worksheet*

## **Health considerations of trail projects:**

- Air & Water quality
- Traffic & Commuting pattern
- Injury & Safety
- Pedestrian Accessibility
- Flooding and Displacement
- Social Cohesion and Housing

# Scoping

Researchers examined the Atlanta Beltline (GA) and Middlesex County Greenway (NJ) HIA. Three health areas were selected as the focus of the Tide to Town Trail Rapid HIA

- 1) An increase in property values due to public-private-partnerships in infrastructure projects, which leads to concerns over **affordable housing**.
- 2) **Pedestrian connectivity**, depending on the trail's placement, that could either maximize community accessibility, or hinder it.
- 3) **Flooding and displacement** associated with flooding from either stormwater or sea level rise could impact populations disproportionately.

## Sources:

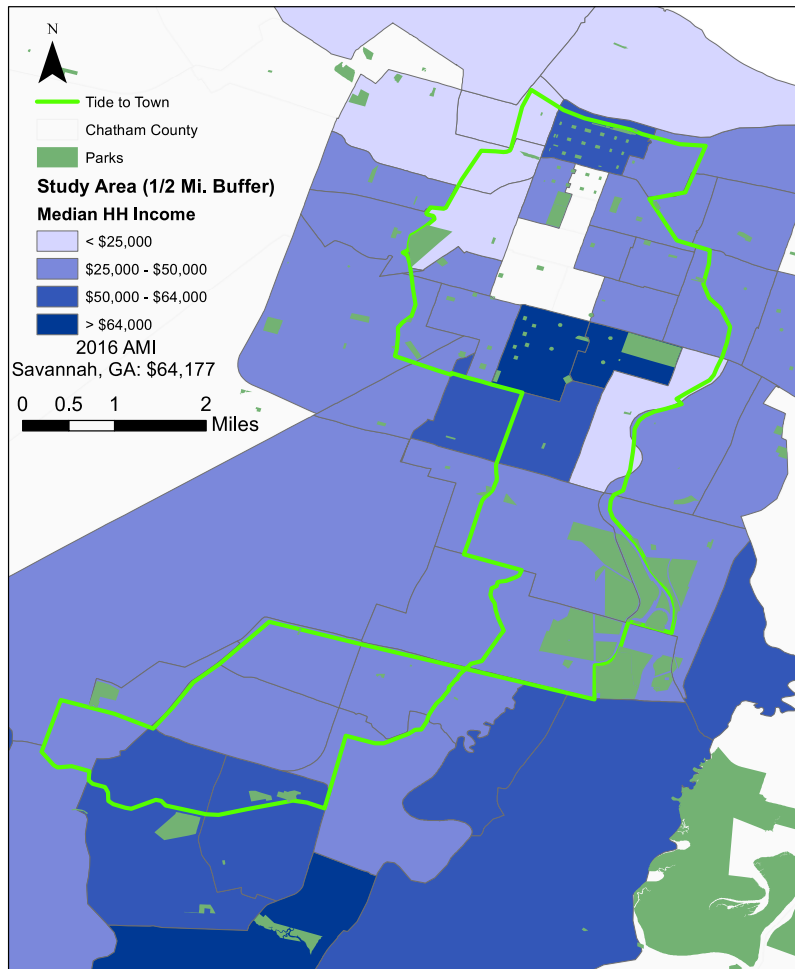
Atlanta Beltline HIA <https://www.pewtrusts.org/~media/Assets/2012/03/01/AtlantaBeltline.pdf>

Middlesex County Greenway HIA <http://njhic.rutgers.edu/wp-content/uploads/2014/03/Middlesex-Greenway-HIA.pdf>

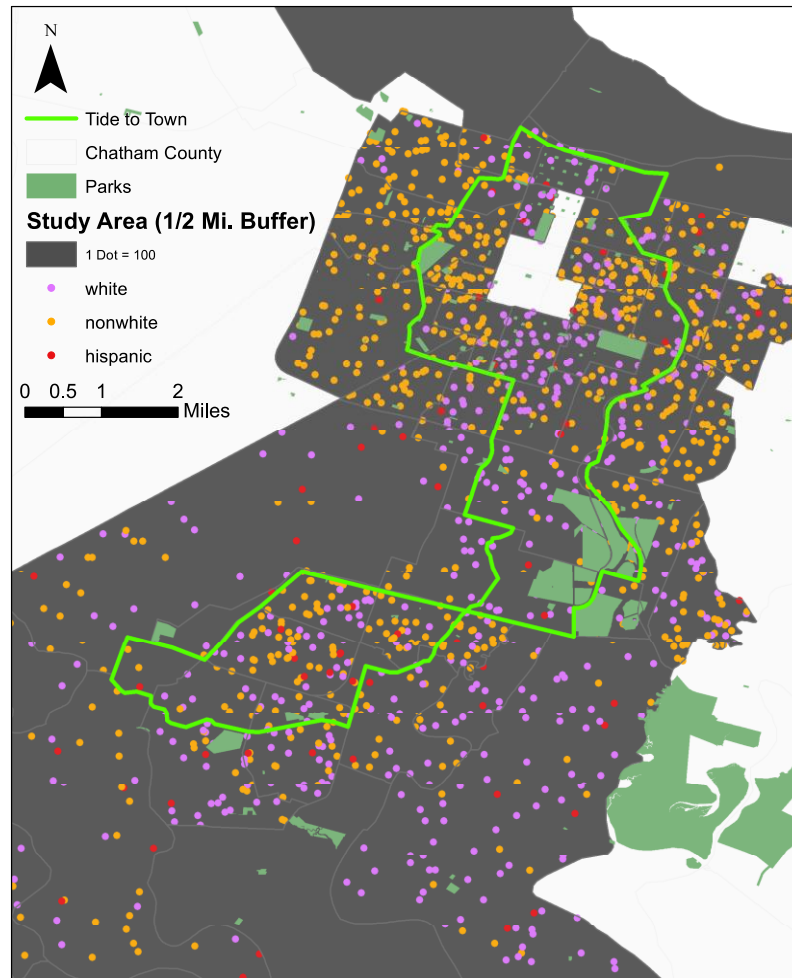
# DEMOGRAPHICS

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Median Household Income (ACS 2017- 5 yr.)



Population by Race and Ethnicity (2017 ACS-5 yr.)





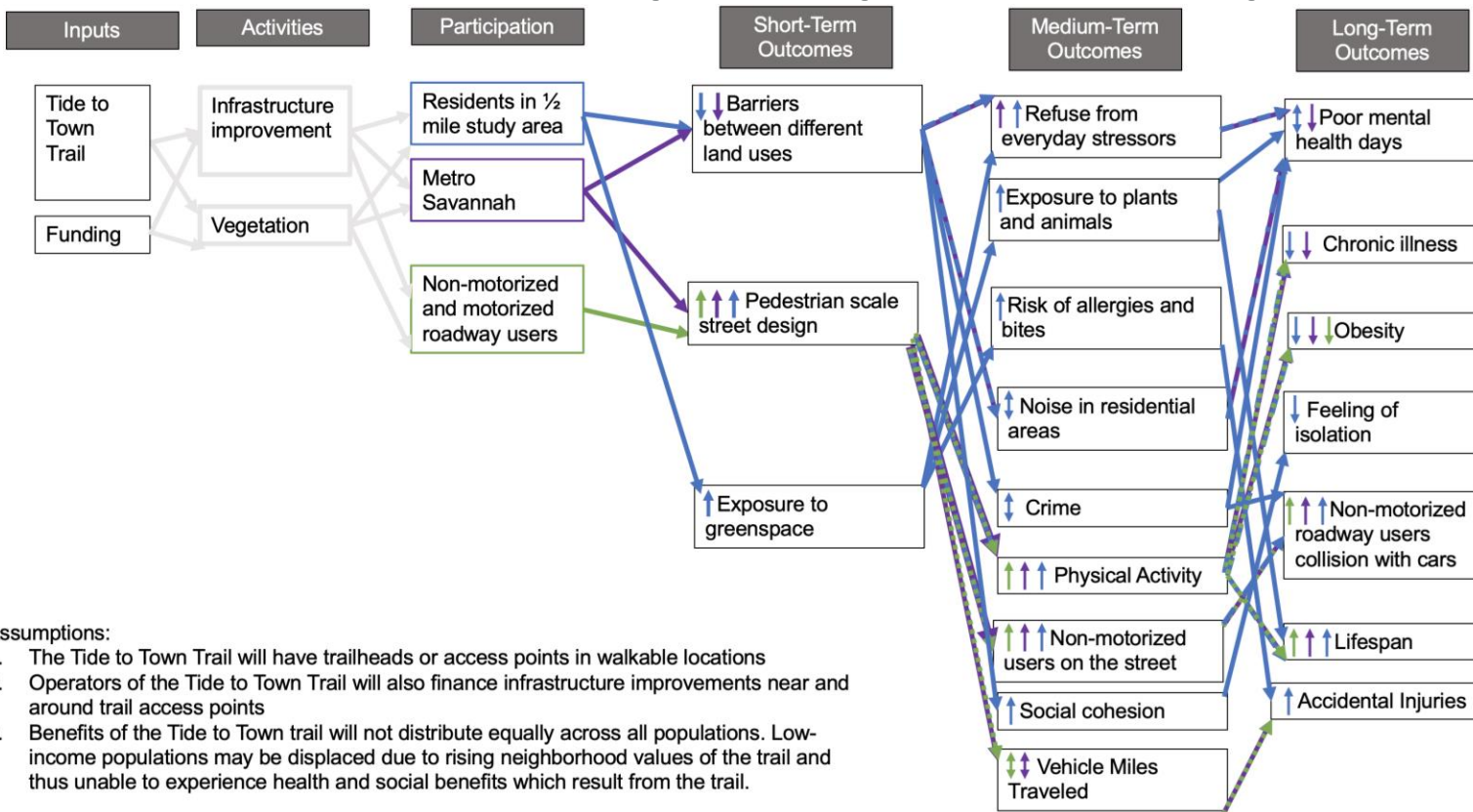
# ASSESSMENT

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# ASSESSMENT

## Physical Activity & Connectivity

## Assessment - Connectivity & Physical Activity

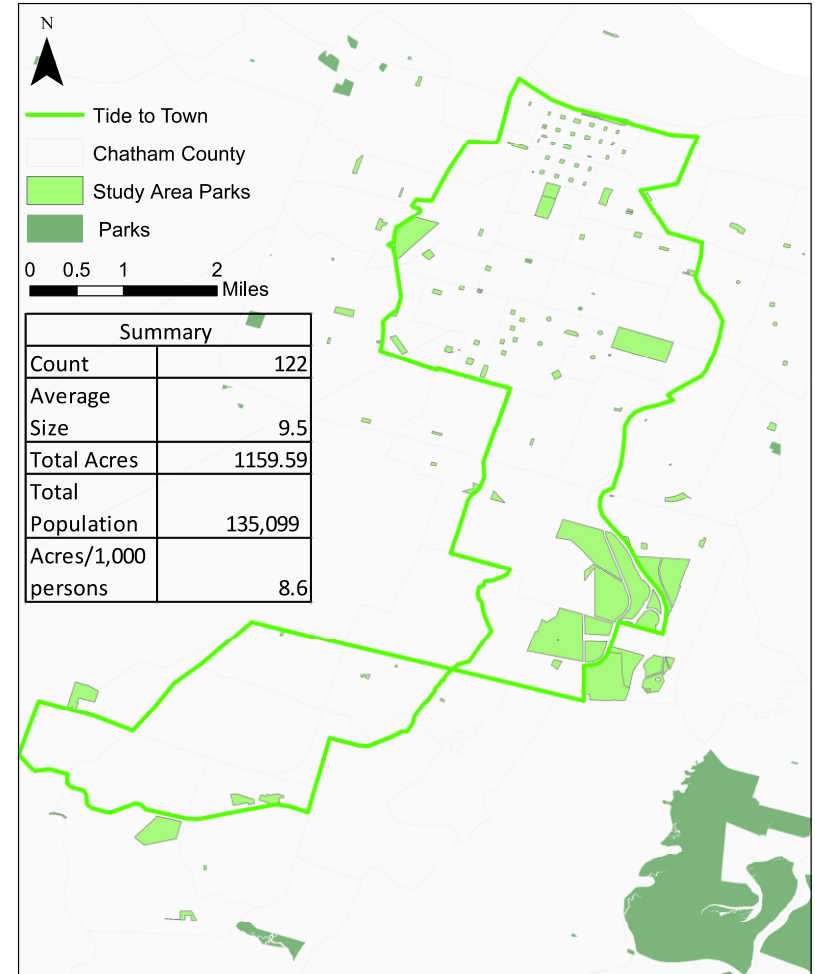


### Assumptions:

1. The Tide to Town Trail will have trailheads or access points in walkable locations
2. Operators of the Tide to Town Trail will also finance infrastructure improvements near and around trail access points
3. Benefits of the Tide to Town trail will not distribute equally across all populations. Low-income populations may be displaced due to rising neighborhood values of the trail and thus unable to experience health and social benefits which result from the trail.

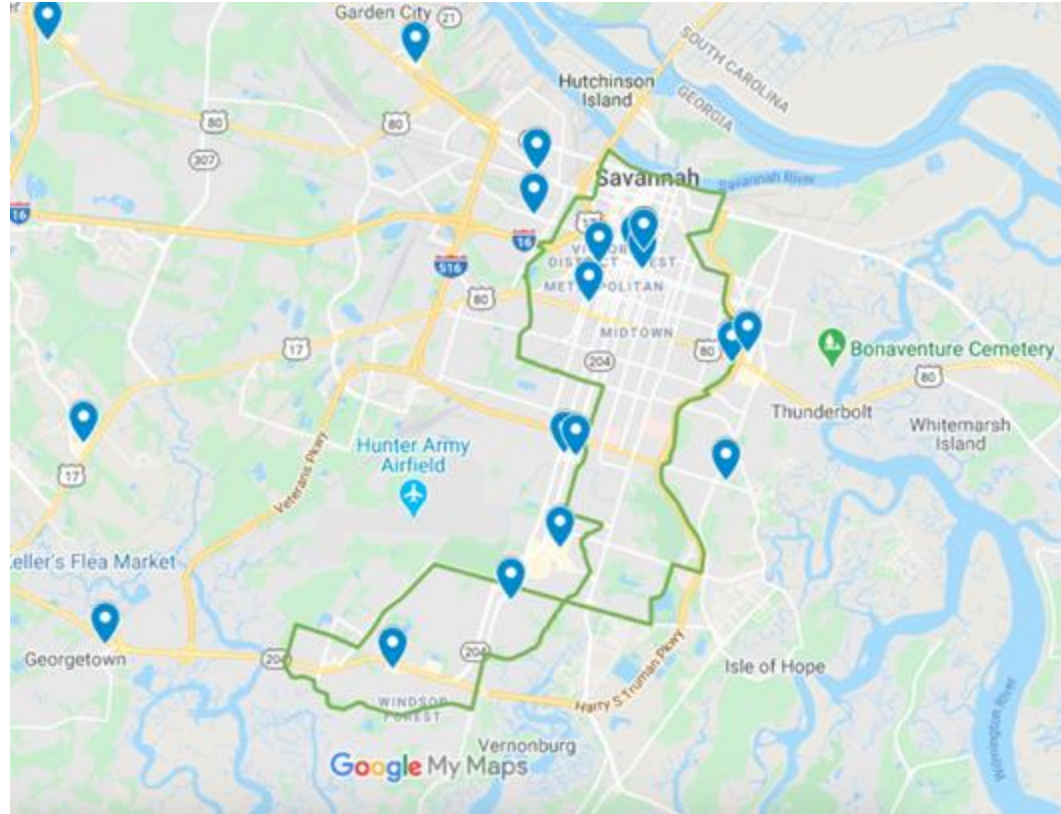
# Assessment Area 1: Parks

- Savannah's acres of parkland per 1,000 residents is comparable to other medium sized cities.
- National Recreation and Park Association recommends 8.5 acres per 1,000. Savannah: 8.6 acres per 1,000
- Savannah has more small squares and plazas which are used for passive recreation



# Assessment Area 2: Healthy Food

- One neighborhood in Savannah classifies as a food desert: Carver Heights
- Low-income: a poverty rate of 20 percent or greater, or a median family income at or below 80 percent of the statewide or metropolitan area median family income
- Low-access: at least 500 persons and/or at least 33 percent of the population lives more than 1 mile from a supermarket or large grocery store (10 miles, in the case of rural census tracts).



# Assessment Area 3: Physical Activity

- Utilitarian and recreational physical activity considered
- Utilitarian: mode of transportation to work (bicycle and walking)
  - In downtown Savannah census tracts between 8-12%, compared to a study area average of 5%, of residents walk to work. In southern areas of the city, percentage drops to nearly 0.
- Recreational: programs offered at park and recreation centers

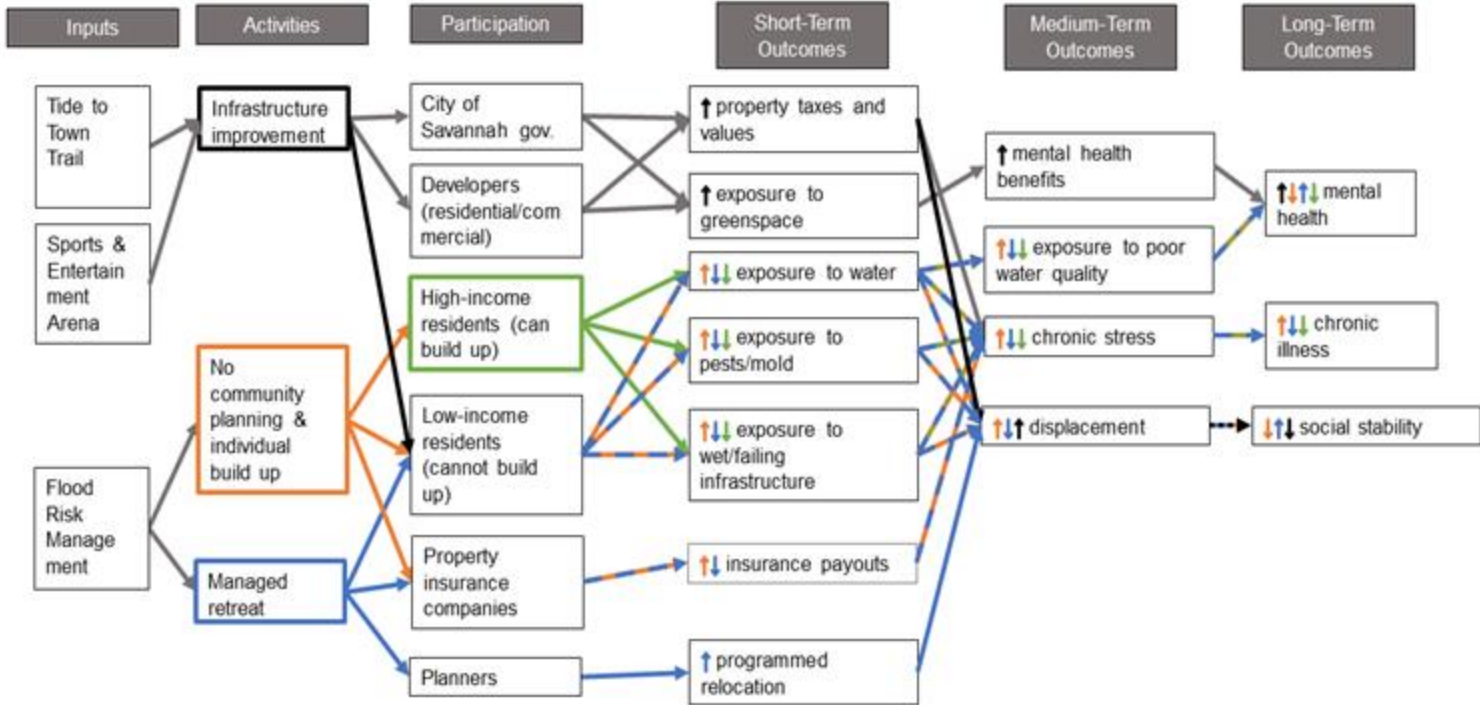
Program	Operation and Season	Location	Target Demographic
Tennis	Year round, weekdays 9a-9p, weekends 9a-5pm	Bacon Park Tennis Complex, Daffin Tennis Park	Public
Softball	Fall, by schedule	Parks with softball courts	Adults
Football	Fall, by schedule	Parks with football fields	Youth
Basketball	Spring, by schedule	Parks with basketball courts	Youth (6+)
Arts and Crafts	Year round, 4-7pm	Multiple parks and community centers	Public
Swim Team	Summer	9 different pool locations	Youth (6-17)
Water Aerobics	Summer, Mondays 6:30-7:30pm	Daffin Park Pool	Public
Supervised Playgrounds	Weekdays 3:30-6:30pm	Multiple park locations	Youth (6-13)
Therapeutic Recreation	Weekdays 3-6pm	Multiple park locations	Youth (9-21) Adults (22+)

# ASSESSMENT

## Flooding & Displacement

# ASSESSMENT

## Assessment - Flooding & Displacement



### Assumptions:

- inequities in benefits of the trail (benefits are not distributed to the lower-income populations who may be displaced)
- infrastructure improvements will increase property values & taxes
- no management leads to high-income residents building up while low-income residents cannot



# ASSESSMENT

## Flooding

### Key Points:

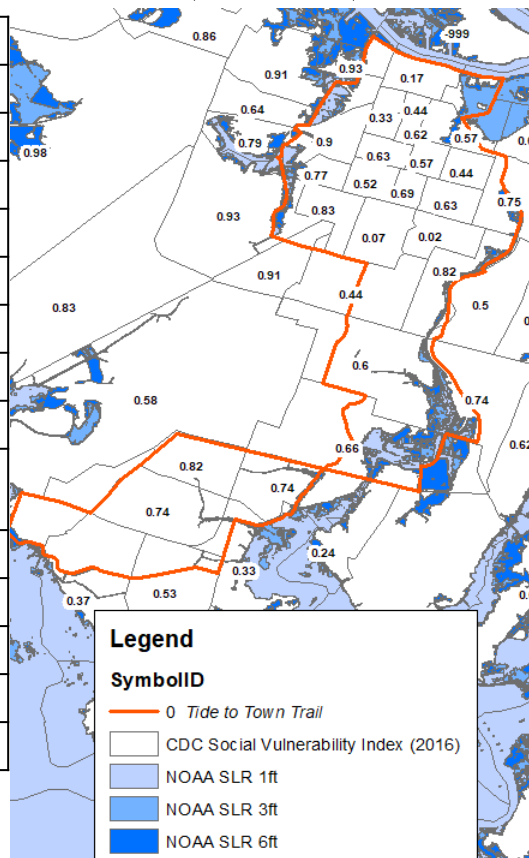
Sea level rise and flooding are highly relevant hazards in Savannah

Areas predicted to be impacted by flooding intersect the current Tide to Town Trail at many locations

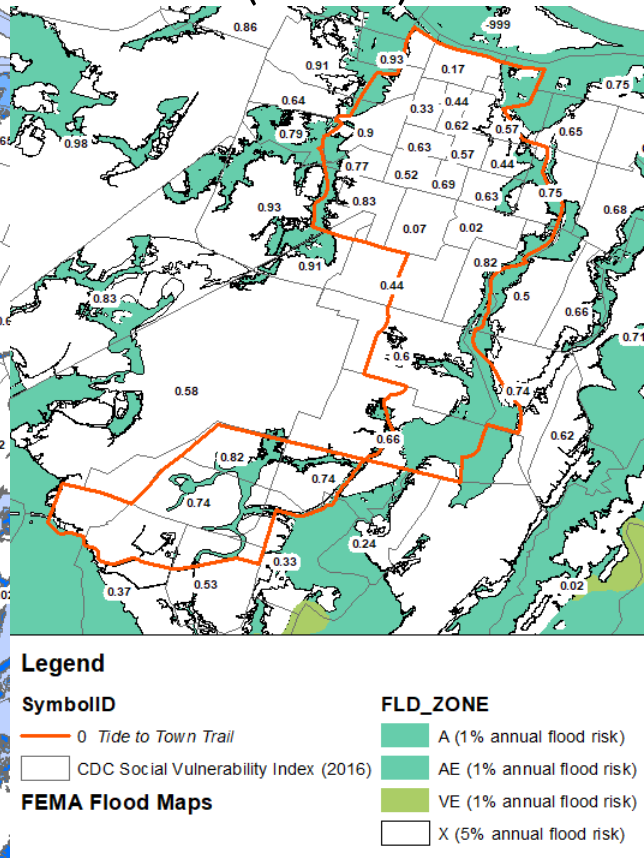
Sea level rise and flooding are predicted to disparately impact more socially-vulnerable residents

More information on [Social Vulnerability Index \(CDC\)](#), [Sea Level Rise \(NOAA\)](#), [FEMA Flood Maps](#)

## Sea Level Rise (NOAA)



## Flood Risk Maps (FEMA)

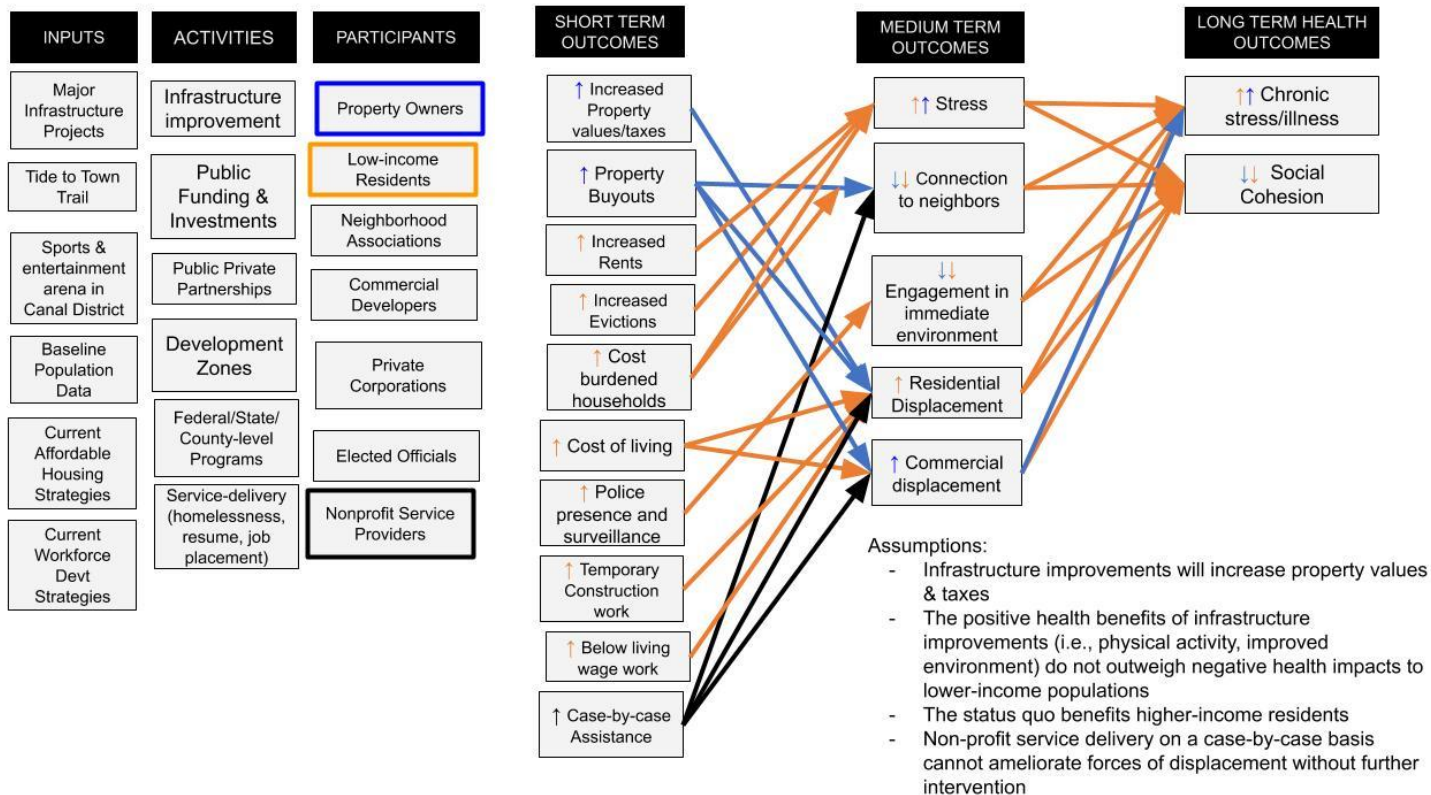


# ASSESSMENT

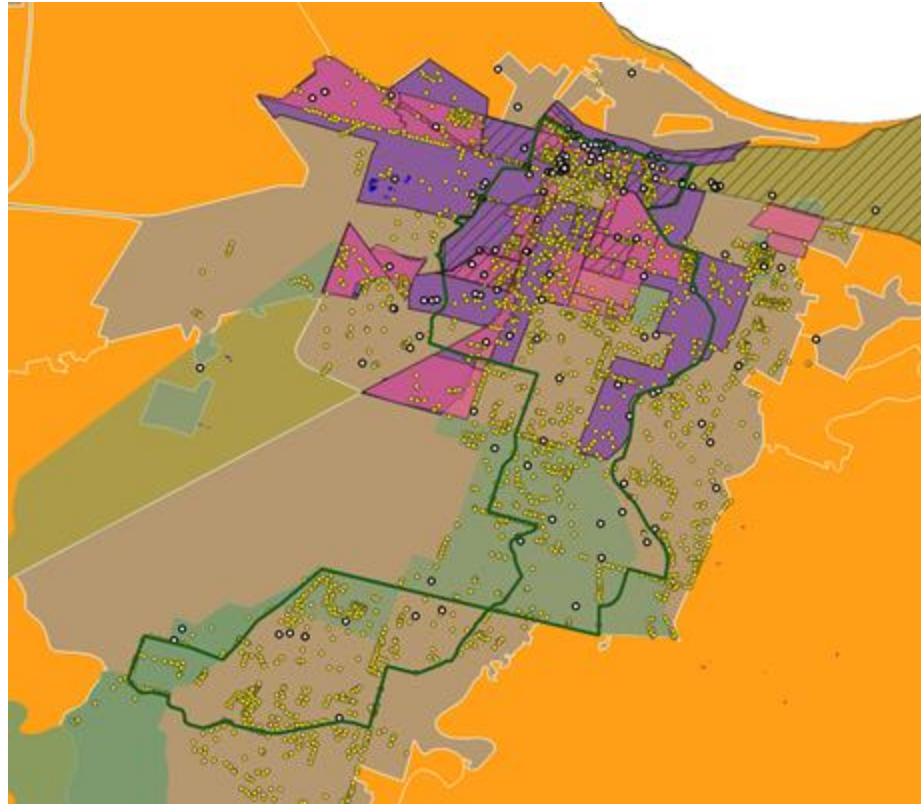
Social Cohesion:  
Housing, Jobs,  
& Economic  
Development

# ASSESSMENT

## Health Impacts of Development on Most Vulnerable



## Savannah's Business Development Landscape



-  Savannah RECAPs
-  Trail Outline
-  Current Savannah Capital Improvement Projects
-  Pending Street Lights
-  Chatham Wetlands
-  Urban Redevelopment Zones **URZ**
-  Community Development Block Group grants
-  Economic Development Zones

**R/ECAP** = racially/ethnically concentrated areas of poverty as designated by Savannah's fair housing assessment.

**URZ** = Georgia's Urban Redevelopment Act establishes Urban Redevelopment Zones. **URZ** allow for the acquisition, clearance, and rehabilitation of land in these area. The state department of commerce designates **Economic Development Zones** as targets for job creation or attraction, and federal HUD dollars for affordable housing come to states through **CDBG** grants.

# RECOMMENDATIONS

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# RECOMMENDATIONS

Flooding &  
Displacement

# RECOMMENDATIONS

## for Mitigation & Enhancement due to SLR and Flooding:

**Identify flood concerns** by engaging with residents, citizen advocacy groups, and Savannah Public Works & Water Resources to better understand the communities/residents that will be potentially impacted by SLR and flooding.

Begin **proactive and comprehensive planning** that accounts for displacement from SLR and flooding, in terms of providing programs to mitigate impacts of displacement.

**Identify potential locations** to which residents could be relocated and integrate programs with the relevant City of Savannah institutions (e.g. Land Bank Authority) such that these locations could be used for relocation of residents affected by SLR and flooding.

# RECOMMENDATIONS

## Physical Activity & Connectivity



# RECOMMENDATIONS

## for increased Connectivity and Physical Activity

**Use pedestrian scale design** on streets that intersect trail access points in neighborhoods

**Implement noise barriers and intense vegetation** on high traffic volume roadways and neighborhoods near trail. (guidance is described in the HIA report)

**Conduct a participatory street audit process to determine trail access points.** Example audits include the [U.S.D.O.T Walkability Checklist](#) & [AARP Streets and Sidewalk Survey](#). The goal is to audit non-motorized road user conditions on every street leading up to the trail. The audit results, in concert with input from residents, school aged children, and law enforcement officials should be used to design access points and trail heads for Tide to Town. The [Microscale Audit of Pedestrian Streetscapes](#) tool can be used to engage youth in the process.

Sources: <https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/walkingchecklist.pdf>  
<https://createthegood.aarp.org/volunteer-guides/walkability-survey.html>  
<http://www.yeah.gatech.edu/wp-content/uploads/2020/01/MAPS.pdf>

## RECOMMENDATIONS

Social Cohesion:  
Housing, Jobs,  
& Economic  
Development

# RECOMMENDATIONS

## for Housing, Jobs, and Social Cohesion

Generate a report from the data collected through the Healthy Savannah/Chatham County Community Survey (Questions 1, 4-7, 8-14, and 17-22)

Use neighborhood-based Area Median Income and other local parameters to design inclusionary zoning policy

Facilitate the development of a legally binding community benefits agreements between residents and Tide to Town developers;

see <https://www.forworkingfamilies.org/page/community-benefits-101> and <https://www.forworkingfamilies.org/page/policy-tools-community-benefits-agreements-and-policies-effect> for more info

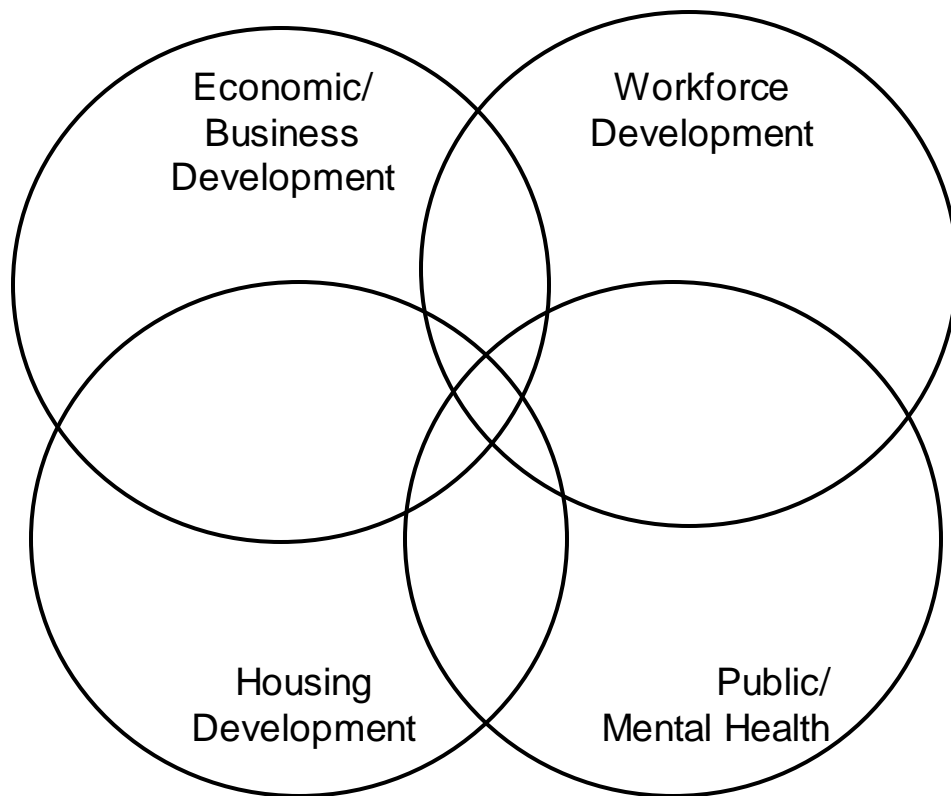
Explore anti-displacement shared equity models such as land trusts, cooperatives, and credit unions

# REPORTING

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# REPORTING

Disseminate findings to partners across multiple fields





# Healthy Savannah Coalition members



Highlighted organizations have shared leadership, programs, or initiatives

# Healthy Savannah Coalition members

## Key Partners

- Funding
- Coordination
- Capacity Building

Highlighted organizations have shared leadership, programs, or initiatives

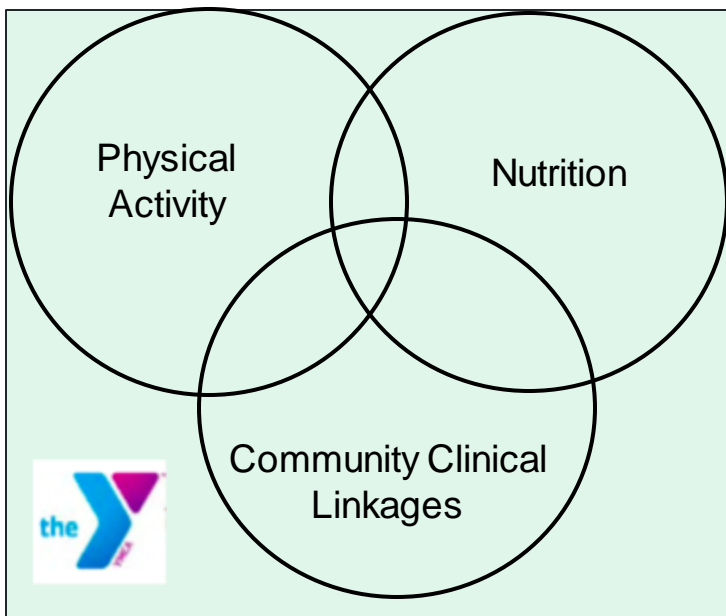




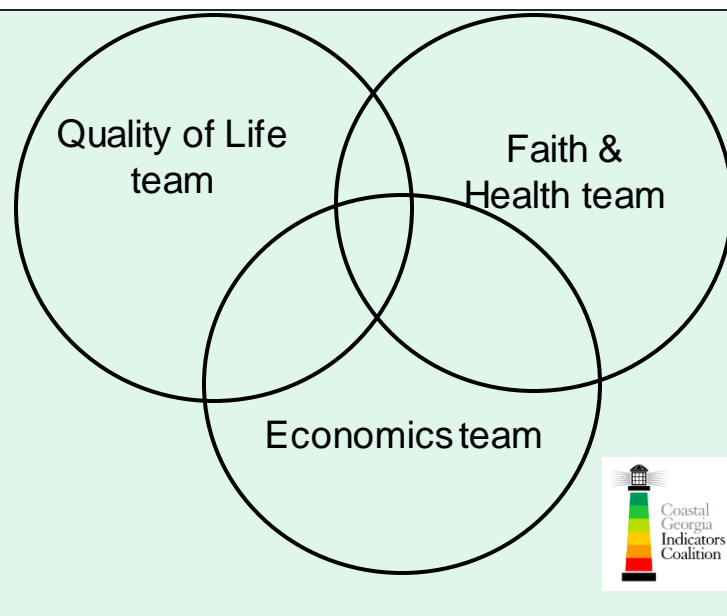
## An Integrated Approach

Create a steering committee among shared partners to coordinate next steps and provide funding for training/capacity building

### Healthy Savannah Committees



### Coastal Georgia Indicators Coalition



# EVALUATION

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# Evaluation

HIA evaluations serve to improve the HIA process by assessing the HIA execution, accuracy of predictions, and effective communication of findings and recommendations to decision-makers.

We have identified an HIA steering committee as important to this effort.

Ideal members of steering committee:

- Local residents & business owners
- Spatially distributed across the city
- Distributed across diverse classes of race, ethnicity, income-level, and employment
- Working group committee of key partners & collaborators

# Evaluation

## Evaluation Plan:

- 1) Creation of HIA steering committee
- 2) Evaluate the scope of this rapid HIA: any relevant aspects not considered?
- 3) Evaluate the assessment: should an alternative be considered?
- 4) Evaluate the recommendations: effective, feasible, aligned with Tide to Town?

# MONITORING

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## Monitoring

Objectives of monitoring:

- 1) Track recommendation adoption
  - a) For each recommendation we identified indicators to monitor, a responsible parties, and monitoring timeline.

<b>Mitigation/ Recommendation</b>	<b>Method to monitor implementation</b>	<b>Responsible party</b>	<b>Monitoring timeline</b>	<b>Action plan if not compliant</b>
Use human centered design principles for trail areas that intersect neighborhoods and the highway	A) How many locations where the trail and highway intersect were identified? B) How many locations for sound wall installations were identified? C) How much in funds were allocated for the construction of sound walls?	The Friends of Tide to Town coalition	Before the trail pathway & design are finalized.	TBD

## Monitoring

- 2) Monitor decision implementation
  - a) We suggest developing a decision implementation monitoring plan for the steering committee to execute including a tracking chart noting whether decision was made, which recs. Which were incorporated, and whether each accepted rec. was implemented
- 3) Monitor health determinants
  - a) For the major health outcome/determinants identified in our logic models, we predicted the health impact of Tide to Town, identified key indicators to monitor, identified potential data sources for the indicators, and identified parties responsible for monitoring.

<b>Health outcome/ Determinant</b>	<b>Predicted health impact of project/policy</b>	<b>Indicators to monitor</b>	<b>Data sources</b>	<b>Next steps</b>
Mental health	With displacement of populations, increased mental stress, reduced social cohesion, reduced resources, etc.	Mentally unhealthy days, suicide, adolescents with a major depressive episode in the past 12 months	Behavioral Risk Factor Surveillance System (BRFSS), National Health Interview Survey (NHIS)	Monitoring by Healthy Savannah, Chatham County Health Department

## Thank you for your time & feedback!

- The Savannah Tide to Town HIA will be posted to the Health Impact Project website: <https://www.pewtrusts.org/en/projects/health-impact-project>
- Feel free to contact us with any additional questions:
  - Kevin Zhu, [kzhu7@gatech.edu](mailto:kzhu7@gatech.edu)
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