

**DURHAM**



**1869**  
CITY OF MEDICINE

# City of Durham Aquatic Facilities Master Plan

**Presented by RATIO and Counsilman-Hunsaker  
August 2017**

# Introduction

## Aquatic Facilities Master Plan Process

- 2015 Pool Assessment Study Completed
- RATIO and Counsilman-Hunsaker began the Master Plan project in July 2016.
- Phases of the process
  - Data Collection and Needs Assessment
  - Conceptual Plan Options and Recommendations
  - Final Master Plan

# Introduction

## Goals of the Master Plan

- To guide the future development of Aquatic Facilities for the City of Durham
- Provide facilities for the entire community
- Determine the specific needs for the City of Durham
- To meet the needs of four user groups
  - Recreation
  - Instruction
  - Competition
  - Therapy and Wellness



# Needs Assessment

- Findings of the Needs Assessment informed the Master Plan Recommendations
- Public Outreach played a significant part of the Assessment and consisted of:
  - Survey: over 500 responses received
  - Stakeholder Meetings: 6 stakeholder groups
  - Open House Public Events
  - Pop-Up Events
- Data Collection
- 'Want' vs. 'Need'



# Needs Assessment

## Key Findings

### Survey

- 54% wanted more indoor pools
- 67% go to other communities to use their facilities
- 89% say they would pay more to use an amenity they wanted in a new aquatic center
- 43% wanted more lap lanes
- Lap swimming, public recreational swimming and swim lessons were the services that were used most at existing facilities.

# Needs Assessment

## Key Findings

### Stakeholder Input

- Strong desire for aquatic opportunities amongst all user groups
- Multi-Generational facilities are needed
- Teaching children to swim is a high priority
- Accessible to everyone /social equality
- Need competition pools
- Perception that Durham is largely underserved
- Wanted Convenient locations



# Needs Assessment

## Key Findings

### Public Workshops and Popups

- Many residents are unaware of current facilities
- Enthusiasm for a broader range of recreational activities
- Want a deep 50m competition pool
- Connectivity- Locate pools with access to American Tobacco Trail or other greenways and trails
- North, West and South Durham need outdoor pools



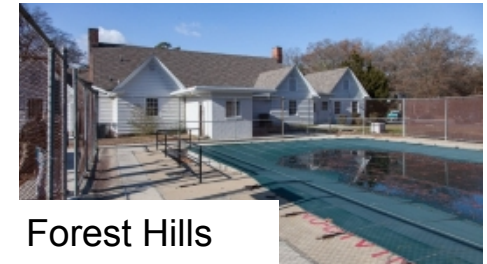
# Needs Assessment

## Review of the 2015 Durham Pools Assessment Findings

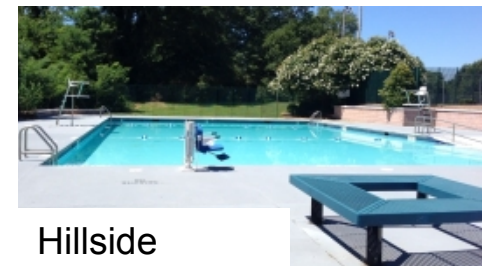
- Long Meadow Pool and Forest Hills Pool will reach end of useful lifespan in 3-5 years
- Hillside, Edison Johnson and Campus Hills will reach the end of lifespan in 25-30 years
- Issues of functional obsolescence
- Capacity issues



Long Meadow



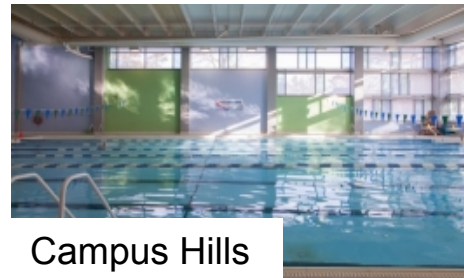
Forest Hills



Hillside



Edison Johnson



Campus Hills



East End



# Needs Assessment

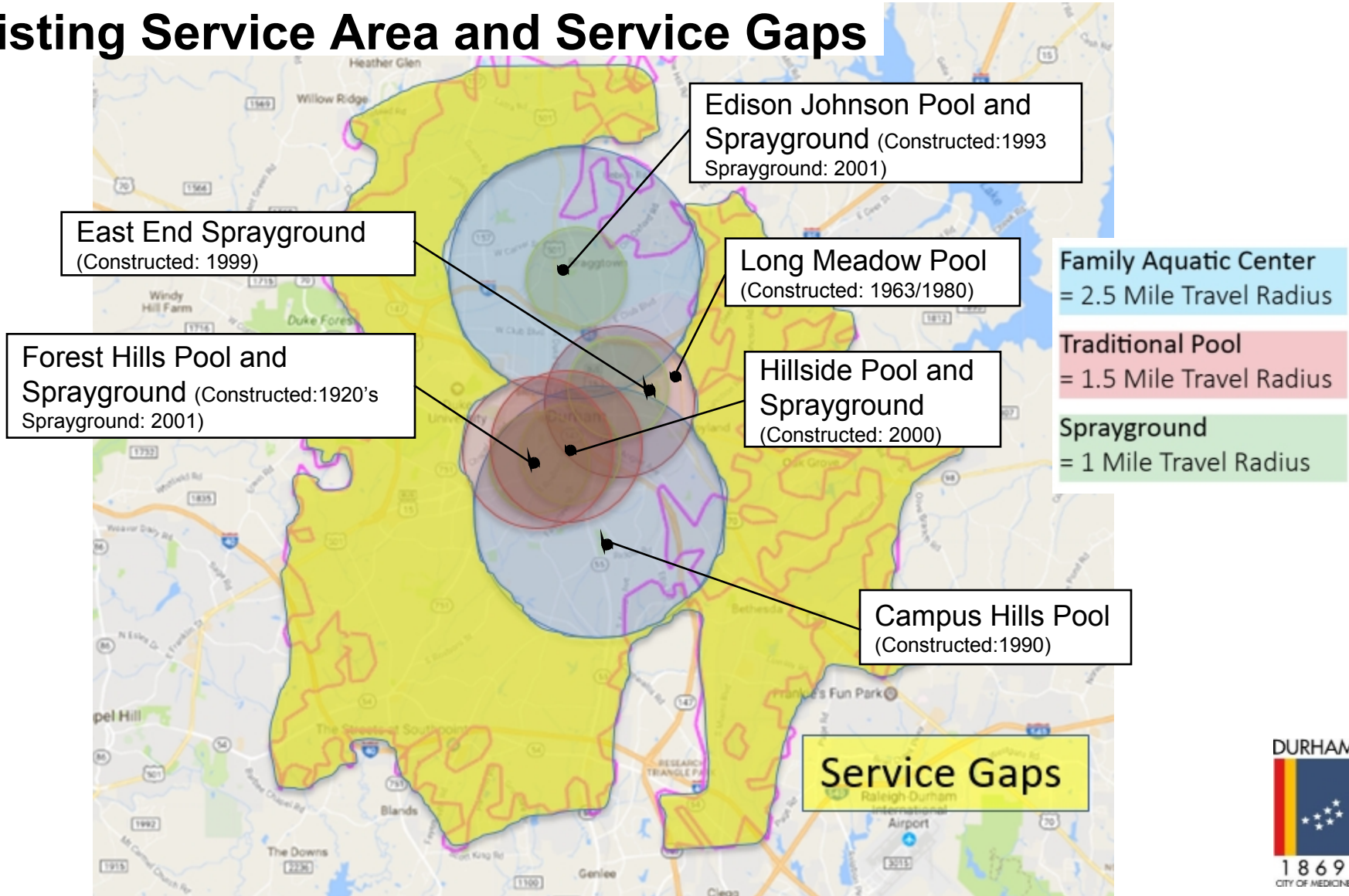
## Benchmark Cities Aquatic Facilities

City	Population	Municipal Pools	Residents per Pool	Existing Lanes	USA Swimming Lane Recommendations**
<b>Durham, NC</b>	<b>254,600</b>	<b>5</b>	<b>50,920</b>	<b>16</b>	<b>55</b>
Baton Rouge, LA	228,895	4	57,224	0	50
Greensboro, NC	269,666	6	44,944	32	59
Norfolk, VA	242,803	7	34,686	24	53
Raleigh, NC	439,896	9	48,877	26	97
Richmond, VA	204,214	9	22,690	9	45
Little Rock, AR	197,357	1	197,357	6	43
Augusta, GA	197,872	5	39,574	30	44
Shreveport, LA	200,327	5	40,065	0	44
Winston-Salem, NC	236,441	8	29,555	0	52
Montgomery, AL	201,332	4	50,333	4	44
<b>AVERAGE</b>	<b>241,880</b>	<b>6</b>	<b>56,531</b>		
<b>Durham, NC*</b>	<b>254,600</b>	<b>3</b>	<b>84,867</b>	<b>16</b>	<b>55</b>
*Reflects attendance figures when Forest Hills and Long Meadow pools are taken offline.					
** Recommended lanes based on current population.					
Source: Counsilman-Hunsaker					



# Needs Assessment

## Existing Service Area and Service Gaps



# Planning Concepts

## Planning for the Future

- Plan for future growth – 2016 population 254,000  
Expected 2032 population- over 328,000
- Current aquatic needs of residents are not being met
- Residents traveling to other communities' aquatic facilities
- Moving forward, keep pace with peer communities



Population Density Map



Buffaloe Road Aquatic Center, Raleigh



Greensboro Aquatic Center

# Planning Concepts

## Lane space per population

- According to industry standards, a total of 71 year round lanes should be provided within 15 years to serve the growing population per USA Swimming recommendations
- 16 year round lanes currently available at Edison Johnson and Campus Hills
- Recommendation: Provide 55 additional year-round lanes

# Planning Concepts

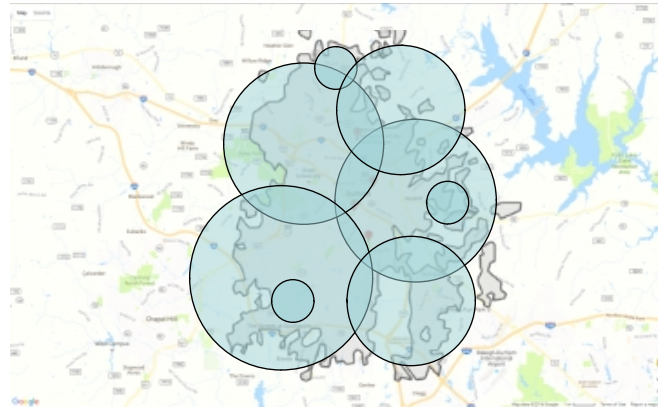
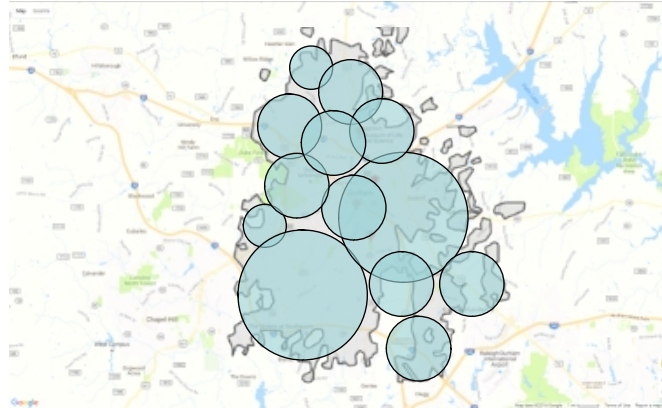
## Aquatics use per population

- Industry Standard recommends a 1:1 ratio of attendance : population
- 15 year projected annual attendance – 328,231 swimmers
  - Current annual attendance– 60,000
  - Current annual attendance at other Durham area providers- approximately 40,000- 60,000 combined
- Recommendation: Provide for an attendance of over 328,000 swimmers per year
  - Service Area Gaps
  - Functional Obsolescence

# Planning Concepts

## Planning Approaches

- Neighborhood
- Regional
- Central



# Planning Concepts

Neighborhood Approach	Regional Approach	Central Approach
Offers small facilities with one body of water for each neighborhood.	Offers multiple medium facilities, each with multiple bodies of water located throughout the community.	Offers one large centralized facility with multiple bodies of water to serve the entire community.
<u>Pros</u> Walkability Flexibility for Phasing	<u>Pros</u> Lower annual subsidy Relatively easy access Flexibility for Phasing	<u>Pros</u> Better efficiencies in operations, maintenance and staffing
<u>Cons</u> Least efficient to build and to operate/maintain	<u>Cons</u> Less convenient than the Neighborhood approach	<u>Cons</u> Not easily accessed by many in the City Difficult to site and to phase

# Master Plan Recommendation

## **The Regional Approach is recommended as the best way forward for Durham**

- Formed through analysis of the Needs Assessment and meetings with City Staff and Key Stakeholders
- Offers multiple facilities, several with multiple bodies of water, located throughout the community
- Lowest annual subsidy
- All four use groups addressed
- Convenient locations

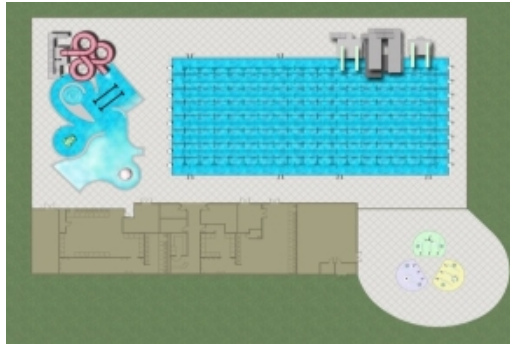


# Recommended Facility Types



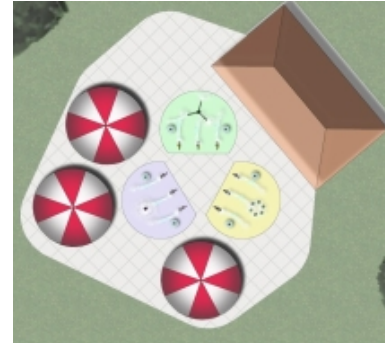
## High Priority

Large Outdoor (1)  
 50M Lanes  
 Waterslides  
 Beach Entry  
 Lazy River  
 Play Structure  
 \$18,300,000\*



## High Priority

Large Indoor with Sprayground (1)  
 50M Lanes  
 Waterslides  
 Lazy River  
 Beach Entry  
 Diving Platforms  
 Sprayground  
 \$23,900,000\*



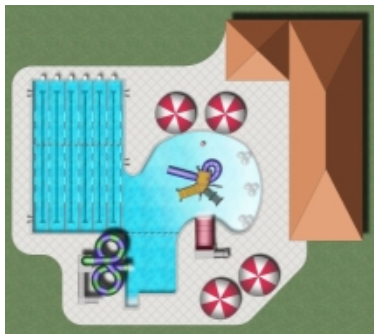
## High Priority

Sprayground (1)  
 Water Features  
 Shade Structures  
 Attached to some facilities  
 \$840,000\*



## Future Priority

Medium Indoor  
 25M x 25Y lap lanes  
 Beach Entry  
 Lazy River  
 1M Diving  
 Waterslide  
 \$19,400,000\*



*Future Priority*  
Small Outdoor  
 25Y Lap Lanes  
 Beach Entry  
 Tot Slide  
 Play Structure  
 Waterslide  
 \$6,400,000\*



## Future Priority

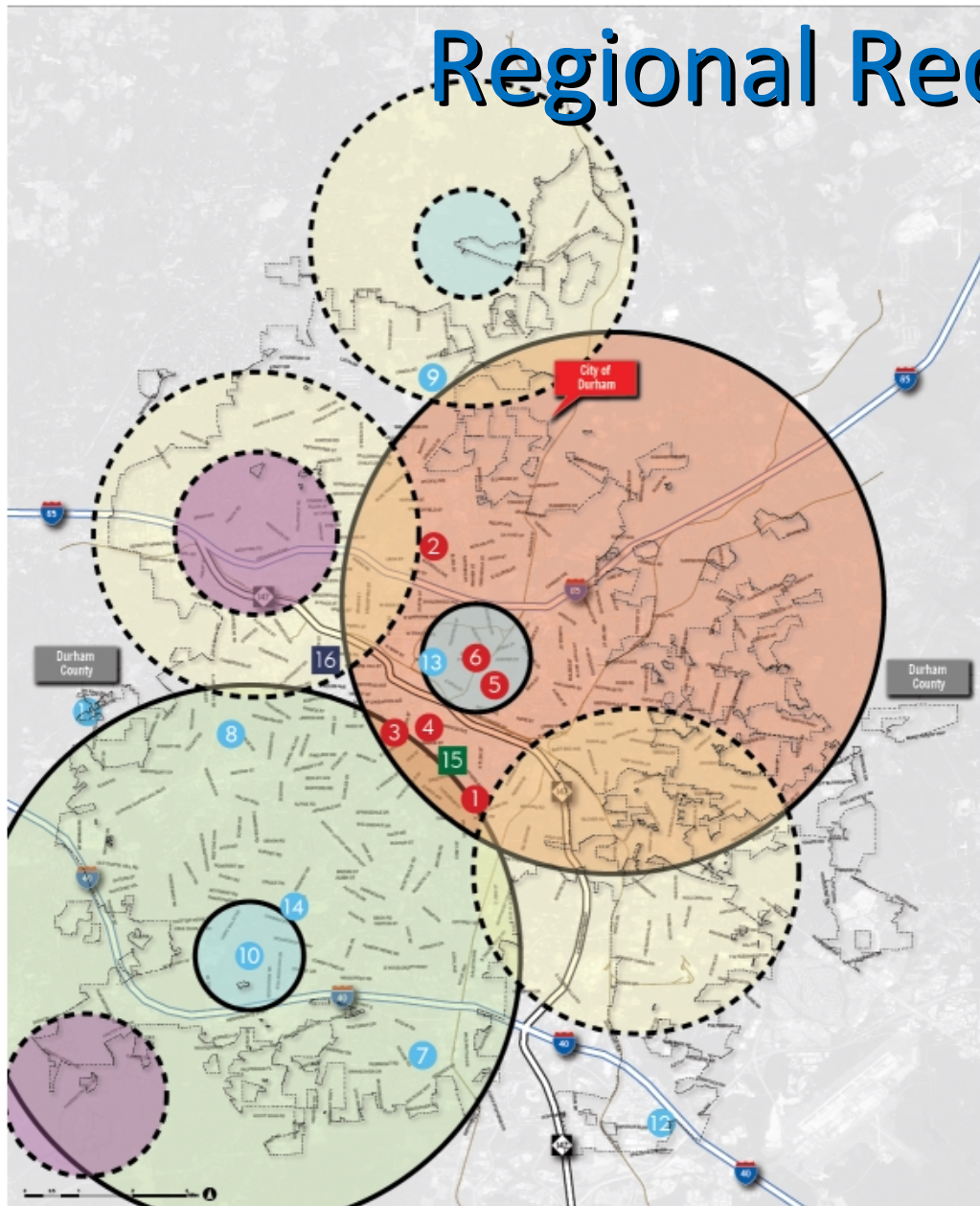
Medium Indoor with Small Outdoor  
 Amenities from both facilities.  
 Lap lanes removed from Small Outdoor  
 \$24,100,000\*



## Future Priority

Medium Indoor with Sprayground  
 Amenities from medium indoor facility with sprayground  
 \$20,500,000\*

# Regional Recommendation A



## LEGEND

----- Corporate Limits

- ① Campus Hills Pool
  - ② Edison Johnson Aquatics Center
  - ③ Forest Hills Pool and Sprayground
  - ④ Hillside Pool
  - ⑤ Long Meadow Pool
  - ⑥ East End Sprayground
- 
- Non-Municipal Providers
- ⑦ Parkwood Swim Club
  - ⑧ Levin Jewish Community
  - ⑨ Eno Valley Swim & Racquet Club
  - ⑩ Woodcroft Swim & Tennis Club
  - ⑪ Hollow Rock Swim Club
  - ⑫ Fitness Connection - Research Triangle Park
  - ⑬ Durham YMCA
  - ⑭ Hope Valley YMCA
  - ⑮ NCCU Aquatic Center
  - ⑯ Duke University (potential future 50m pool)

Sprayground = 1 Mile Travel Radius

Small Outdoor = 1.5 Mile Travel Radius

Large Outdoor = 5 Mile Travel Radius

Medium Indoor = 3 Mile Travel Radius

Large Indoor = 5 Mile Travel Radius



# Regional Recommendation A

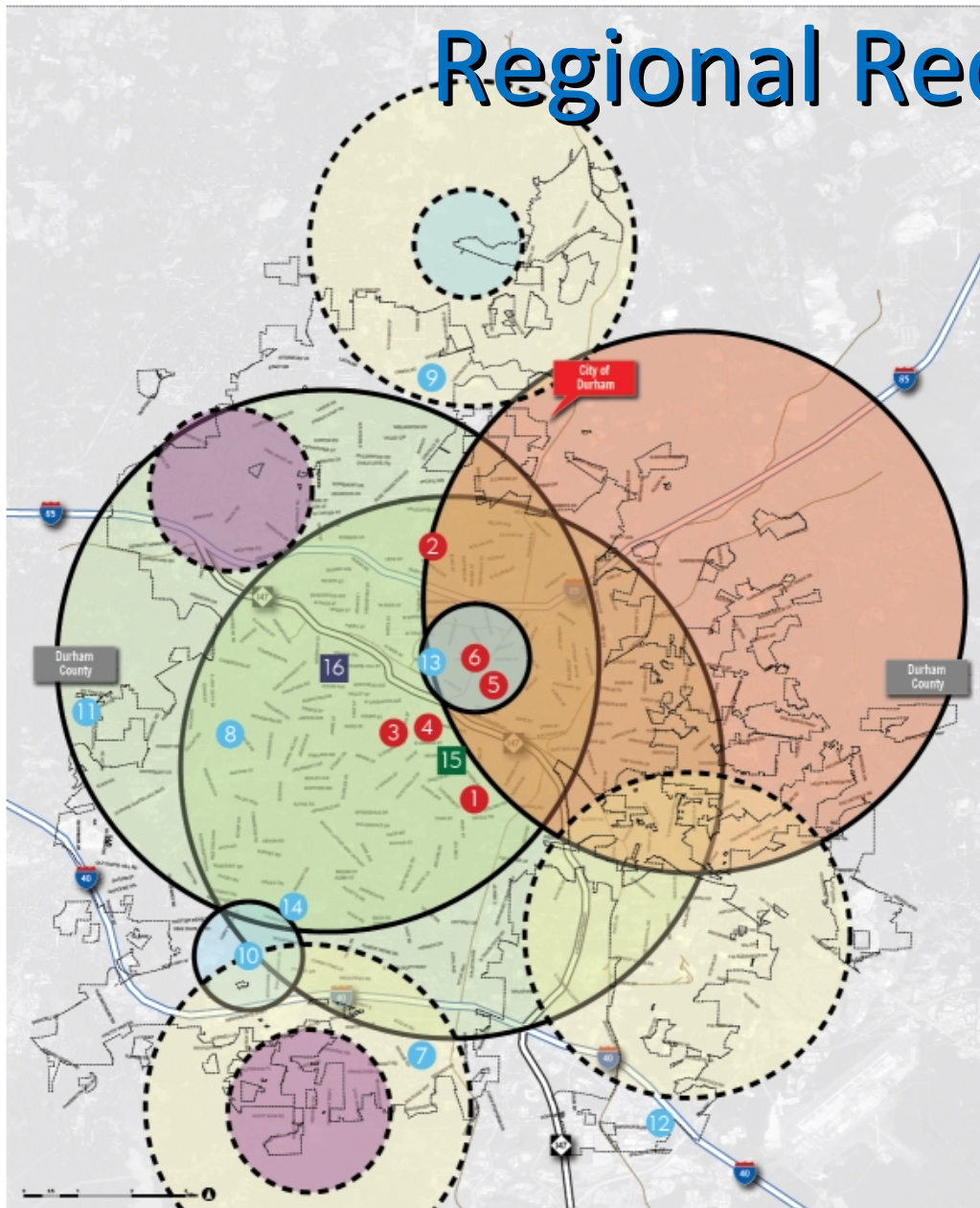
Priority	Facility	Project Cost	Attendance	Revenue	Expenses	Cashflow	Recapture Rate
High Priority	Large Outdoor	\$ 18,300,000	48,060	\$ 370,981	\$ 686,314	\$ (315,333)	54%
	Large Indoor and Sprayground	\$ 23,900,000	50,844	\$ 545,317	\$ 1,272,956	\$ (727,639)	43%
	Sprayground	\$ 840,000	7,209	\$ -	\$ 39,240	\$ (39,240)	0%
Future Priority	Medium Indoor and Sprayground	\$ 20,500,000	45,759	\$ 404,023	\$ 1,344,979	\$ (940,956)	30%
	Medium Indoor	\$ 19,400,000	45,759	\$ 404,023	\$ 1,302,120	\$ (898,096)	31%
	Medium Indoor and Small Outdoor	\$ 24,100,000	50,844	\$ 438,523	\$ 1,548,223	\$ (1,109,700)	28%
	Small Outdoor	\$ 6,400,000	25,953	\$ 158,073	\$ 321,030	\$ (162,957)	49%
	Current Offerings	\$ -	38,000	\$ 150,699	\$ 835,541	\$ (684,842)	18%
<b>Total</b>		<b>\$ 113,440,000</b>	<b>305,219</b>	<b>\$ 2,471,640</b>	<b>\$ 7,350,403</b>	<b>\$ (4,878,763)</b>	<b>34%</b>

## Total Cost: \$113,440,000

- High Priority: \$43,040,000
- Future Priority: \$70,400,000
- Does not include land acquisition
- Lap lanes at buildout– 71 year round, 28 outdoor



# Regional Recommendation B



## LEGEND

----- Corporate Limits

- 1 Campus Hills Pool
  - 2 Edison Johnson Aquatics Center
  - 3 Forest Hills Pool and Sprayground
  - 4 Hillside Pool
  - 5 Long Meadow Pool
  - 6 East End Sprayground
- 
- Non-Municipal Providers
- 7 Parkwood Swim Club
  - 8 Levin Jewish Community
  - 9 Eno Valley Swim & Racquet Club
  - 10 Woodcroft Swim & Tennis Club
  - 11 Hollow Rock Swim Club
  - 12 Fitness Connection - Research Triangle Park
  - 13 Durham YMCA
  - 14 Hope Valley YMCA
  - 15 NCCU Aquatic Center
  - 16 Duke University (potential future 50m pool)

Sprayground = 1 Mile Travel Radius

Small Outdoor = 1.5 Mile Travel Radius

Large Outdoor = 5 Mile Travel Radius

Medium Indoor = 3 Mile Travel Radius

Large Indoor = 5 Mile Travel Radius

\*Shows Potential Partnerships with Area Universities



# Partnership Considerations

## Exploring Potential Partnership Opportunities

- Duke University
- North Carolina Central University
- Durham Public Schools



# Summary

## Regional Recommendation A

- 7 New Facilities (3 of existing 5 facilities will remain)
- \$113,440,000 total project cost (in 2017 dollars with 10% escalation) – does not include land
- 71 year round lanes, 28 outdoor lanes (includes 16 existing lanes from Campus Hills and Edison Johnson).
- Future yearly attendance at over 300,000 – **5x current**



# Next Steps

## Next Steps

- Continue conversations with potential partners
- Funding Options
- Utilize site selection criteria from Master Plan to explore potential new sites
- Perform feasibility studies
- Land acquisition
- Design

