

SEND IT! Building Mecklenburg County's First MTB Trails & Bicycle Parks Plan



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PLAN OVERVIEW



Purpose

Existing partnerships have begun to reach the limit of what they can do within current staff capacity, capital planning & investment processes, and maintenance practices.

Cordelia Pop-Up Bike Park – June 2021 – Over 500 participants

THE PURPOSE OF THIS PLAN IS TO SUPPORT MECKLENBURG COUNTY PARK & REC, THE TARHEEL TRAILBLAZERS, AND THEIR PARTNERS WITH RECOMMENDATIONS TO SERVE THE GROWING NUMBER OF MTB RIDERS AND SKILL LEVELS ACROSS THE REGION WITH FACILITIES THAT ARE BETTER CONNECTED AND BETTER INTEGRATED WITHIN OUR COMMUNITIES.



Scope & Partners

- **Create an Inventory of Existing Bike Parks & MTB Trails**
- **Gap Analysis** - Understand how our existing MTB trails and bicycle parks are (or aren't) serving people across Mecklenburg County
- **Stakeholder Involvement**
 - Steering Committee
 - Tarheel Trailblazers Board
 - Agency Partners Input & Review
- **Develop Recommendations**
 - **LEARN** – case studies of 3 peer communities
 - **BUILD** – infrastructure → identify “Priority Opportunity Sites”
 - **ACTIVATE** – programming & outreach
 - **MAINTAIN** – keeping our assets in great shape
- **Final Plan**
 - Illustrated plan document



Vision & Goals

Developed by Steering Committee and Agency Partners



Vision Statement

Mecklenburg County is a nationally recognized MTB destination where public, private, and non-profit partners collaborate closely to BUILD, ACTIVATE, and MAINTAIN a MTB trails and bicycle parks network that serves riders of all ages, abilities, and backgrounds.

Goals



1. Expand MTB facilities and accessibility for youth/beginners.
2. Develop a MTB network that is connected by greenways.
3. Create a more inclusive MTB network that addresses the needs of diverse riders and responds to inequalities in the community.
4. Support partnerships for maintaining and programming MTB assets.
5. Celebrate MTB experiences as a valuable tool for boosting tourism, active transportation, and public health.
6. Include MTB facilities and bicycle parks as an integral part of the capital planning, community engagement, and investment process for County parks and greenways.





CASE STUDIES



Peer to Peer Learning

Denver, CO



Barnum Park North

Knoxville, TN



Baker Creek Park

Northwest Arkansas



Color Mountain Bike Preserve



Denver, CO

By the Numbers

- **100+** year old mountain parks system across 5 counties
- **~60 miles of trails** managed by DPR
- **70k acres/325+ miles of trails** and recreational opportunities outside Denver city limits (Denver Mountain Parks & Jefferson County Open Space System)

Lessons Learned

- Bike gear/libraries **lower barrier to entry**
- Beginner-level facilities serve more people and attracts **lifelong riders**
- **Coordinate** all local, state, private stakeholders to leverage strengths



Northwest Arkansas

By the Numbers

- ~750 miles of trails
- ~50 trail counters (maint. by Trailblazers/cities)
- 25%+ of MTB trail system is beginner level

“Rely on your youth.”

Erin Rushing, NW Arkansas Trailblazers

Lessons Learned

- **Develop** natural surface trails **parallel to paved greenways** – allows users to switch and families to ride together
- Focus on providing **more youth/beginner experiences** with a progression to **fewer advanced facilities**
- **Connect** bike parks and MTB trails **using greenways**



Knoxville, TN

By the Numbers

- **1,000 acre** Urban Wilderness is a regional centerpiece
- **58 miles** of natural surface trails
- **96%** of AMBC maintained mileage is **multiuse**



Baker Creek Preserve

Lessons Learned

- **Build coalition** that spans trail user types
- Access to trails/amenities should not be isolated to advanced riders or affluent areas
- **Understand public investment needed to support trail maintenance** – City has MOU with AMBC (\$100k/yr) for maintenance, staffing, materials

“Minorities are still underrepresented in MTB and outdoor recreation users. We need to figure out how to diversify our users and get more groups involved.”

Sheryl Ely – Director, City of Knoxville Park & Rec



FACILITY TYPES



Facility Types

Traffic Garden

Play area for children with pavement markings intended to mimic elements of a roadway/streetscape – fun way for children to learn rules of the road and bike safety skills



User Groups

Beginner, tailored to children



Space Requirements

Typically 4,000 ft² to 15,000 ft²



Maintenance Requirements

Relatively minimal – Refresh pavement markings every 5+ years based on wear; Repair/replace associated signage as necessary



Facility Types

Skills Areas

Emphasis on playful skill and confidence building. Can be an element of a larger bike park or standalone facility. Obstacles and man-made features are typically 36" tall or less (Skills areas geared toward very young riders are often known as "bicycle playgrounds.")



User Groups

All ages and skill levels – may have different "lines" for different skill levels



Space Requirements

¼ acre to 1 acre; relatively flat to gentle sloping area



Maintenance Requirements

Varies based on facilities present

- Daily – monitoring conditions for open/close status
- Weekly/Monthly – checks for hazards & clearing
- Bi-annual/Annual – inspection/repair of trails & man-made features



Facility Types



Pump Tracks

Condensed, circuitous trails with a smooth, undulating surface. Allows riders to “pump” the bike and body to propel themselves around the track

User Groups

All ages and skill levels



Space Requirements

- Dirt or Asphalt - ¼ acre to 1.5 acres
- Modular – 1,000 ft² - 2,000 ft²



Maintenance Requirements

Highly dependent on type of pump track (modular, dirt, or asphalt). Dirt pump tracks require seasonal maintenance.



Facility Types

Jump Lines

Short trails specifically designed to provide repeatable jumping runs and fun skills progression. Best practice is to include multiple lines that cater to beginner, intermediate, and advanced riders.



User Groups

All ages and most skill levels, except for first-time riders



Space Requirements

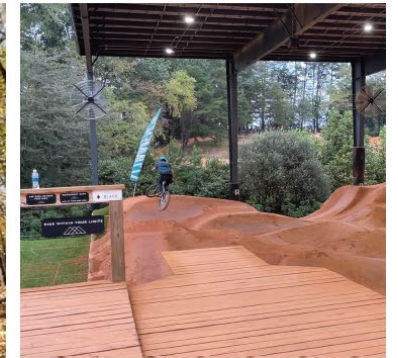
½ acre – 1 acre



Maintenance Requirements

Dependent on type of jump line

- Fully dirt jump lines require regular skilled maintenance
- Wood / steel jump lips and asphalt jump lines require minimal maintenance for life of product/paving



Facility Types

Bike Parks

Provide various off-road facilities in one location, with an emphasis on skill, thrill, and play. Typically part of larger regional parks that include other amenities like ball fields, playgrounds, etc.



User Groups

Typically provide opportunities for skills progression between various ages and skill levels



Space Requirements

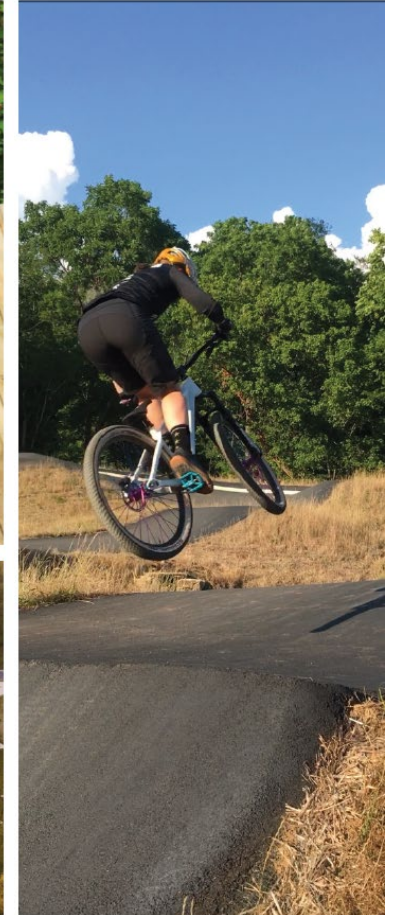
5-100 acres with 3 or more component facilities (pump track, flow trail, skills area, jump lines, etc.)



Maintenance Requirements

Varies based on facilities present

- Daily – monitoring conditions for open/close status
- Weekly/Monthly – checks for hazards & clearing
- Bi-annual/Annual – inspection/repair of trails & man-made features



Facility Types... something for everyone!

Flow Trails



Cross Country Singletrack



Gateway Parks

Bike Polo Courts

+

BMX Race Track

Cyclocross Course

and more!



GAP ANALYSIS & PRIORITY SITES



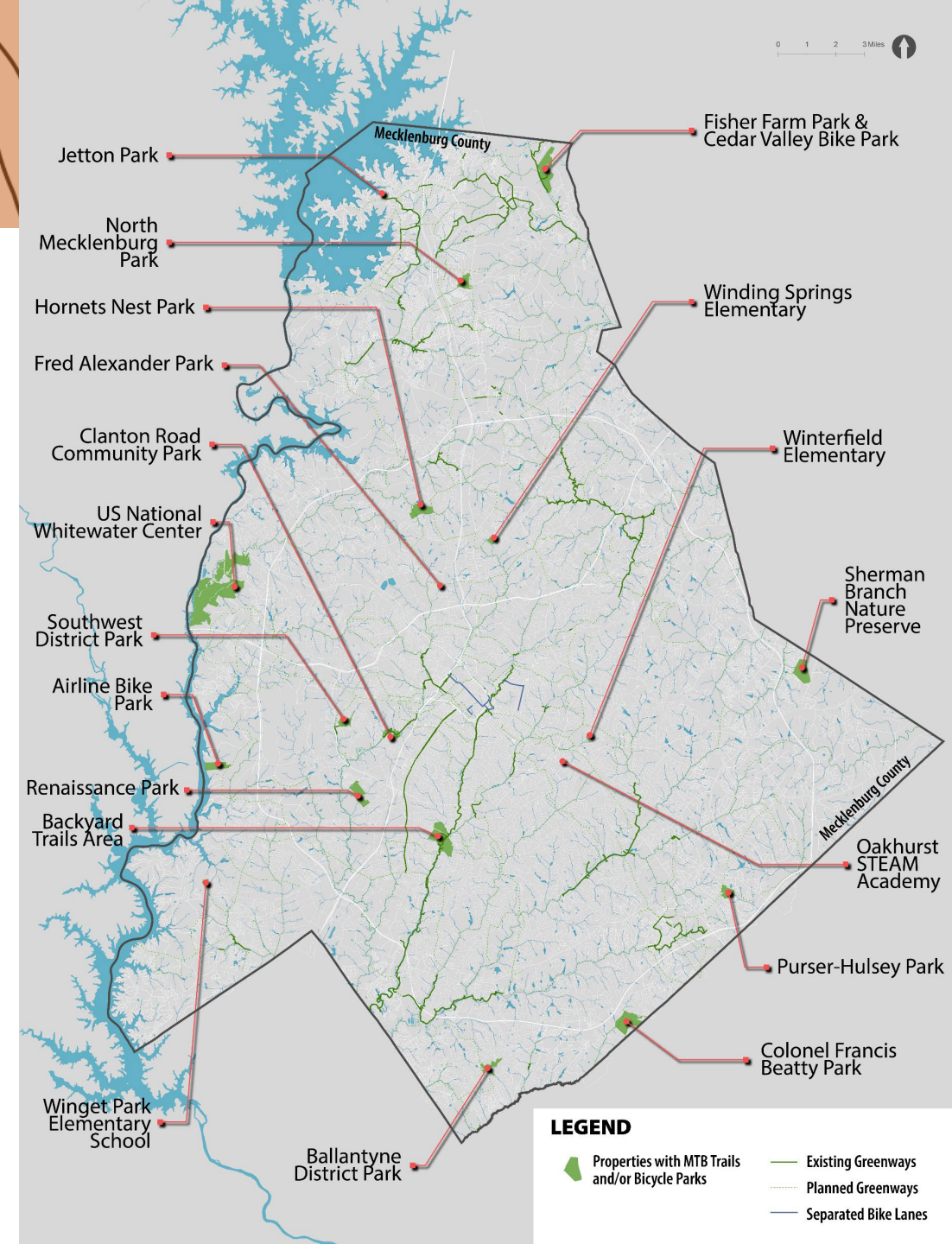


Existing MTB Trails & Bike Parks

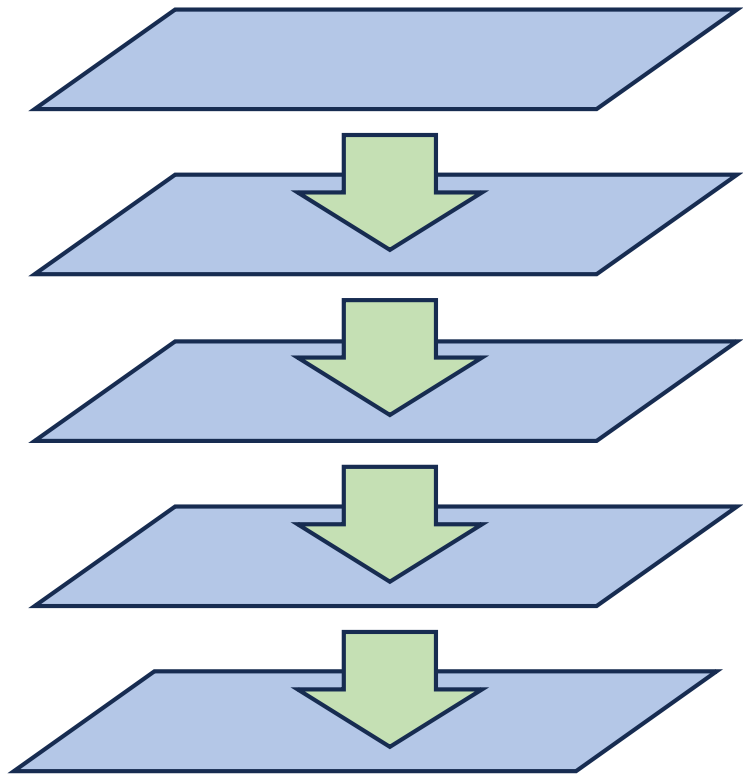
19 sites

Including...

- **12 MTB trail sites**
- **5 sites with jump lines**
- **5 traffic gardens**
(4 elementary schools and 1 rec center)
- **4 sites with pump tracks**
(incl. new asphalt pump track at Fred Alexander Park)
- **1 BMX track**
(Hornets Nest Park)



Gap Analysis: Methodology

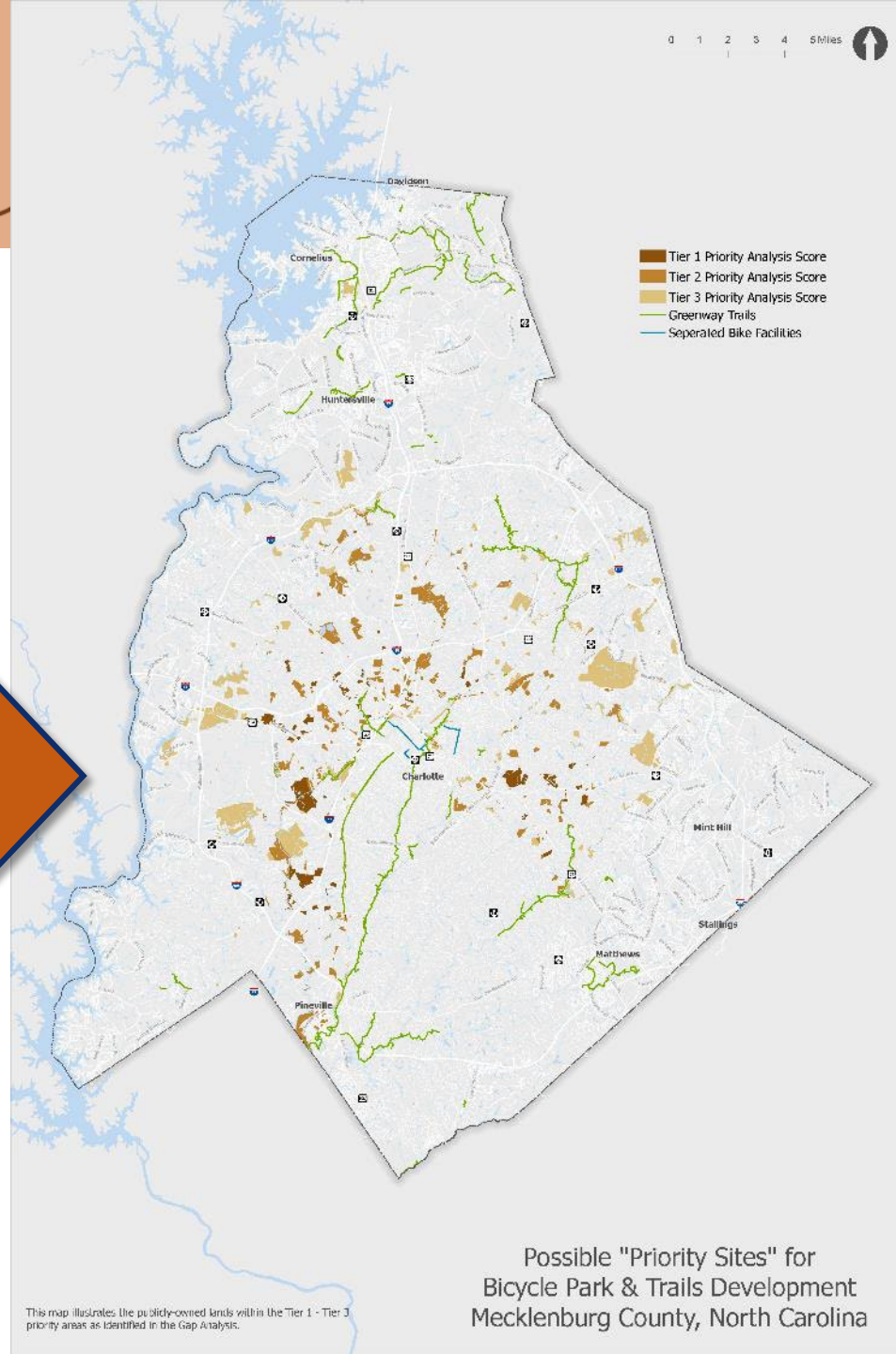
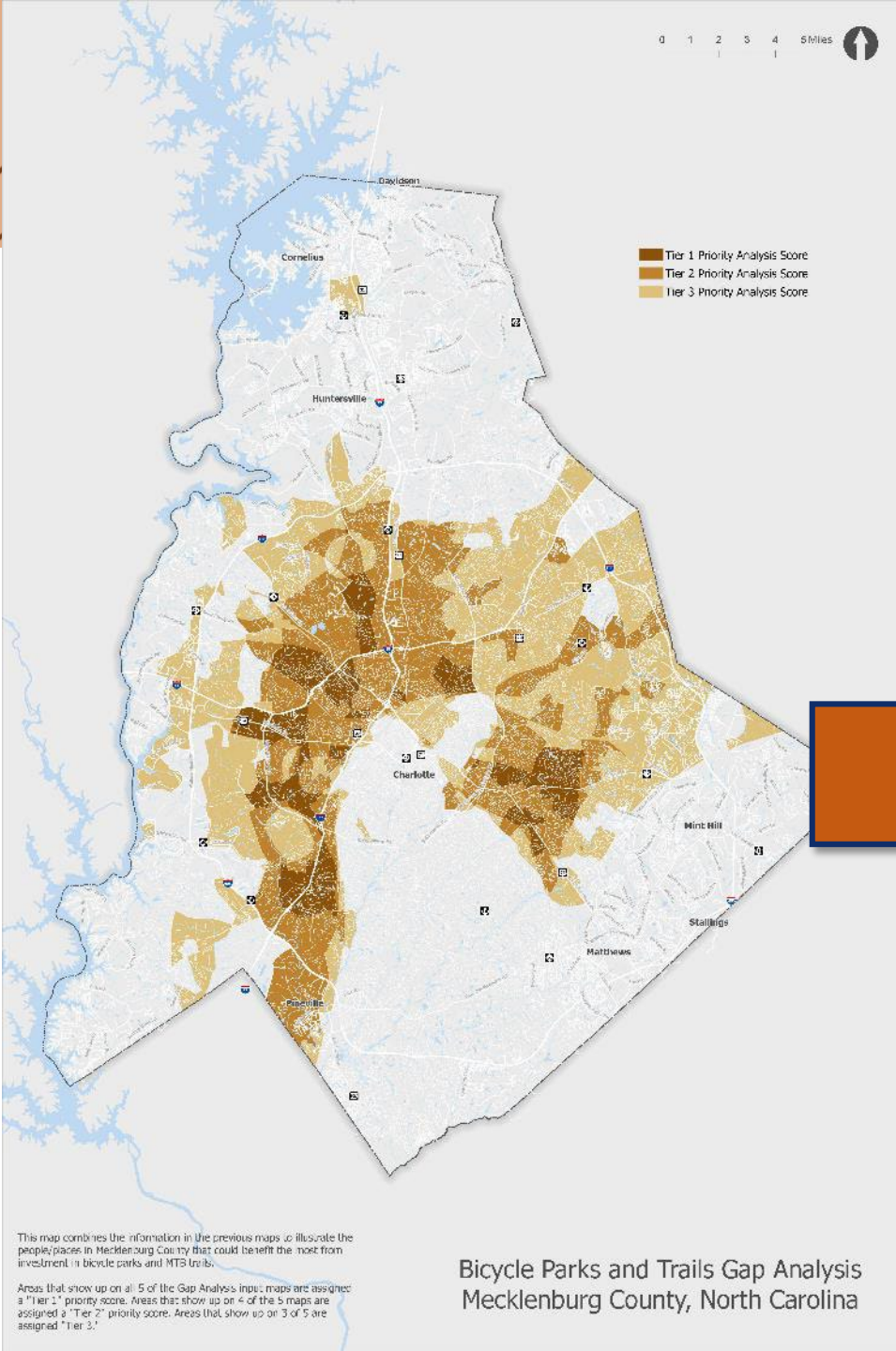


5 Screening Maps

- **MAP 1: Lack of Access to Bike Parks & MTB Trails**
 - Areas further than ½ mi from properties with MTB trails or bike parks
- **MAP 2: Equity**
 - “Crescent” from 2040 Comp Plan - identifies areas with higher concentration of needs
- **MAP 3: Park & Recreation Priority Communities**
 - Identified in Meck Playbook
- **MAP 4: Public Health Dept. Priority Zones**
 - Identified by epidemiology team at Health Dept. in coordination with NC Dept. of Health and Human Services & NC Institute for Public Health
- **MAP 5: Youth**
 - Neighborhood planning areas with 25% or more youth population

- **Tier 1 Areas** = Show up on all 5 screening maps
- **Tier 2 Areas** = Show up on 4 of 5 screening maps
- **Tier 3 Areas** = Show up on 3 of 5 screening maps

Gap Analysis





Identifying “Priority Opportunity Sites”

Gap Analysis

+

Opportunities to extend/expand existing bike parks and MTB trails

+

Steering Committee & Stakeholder Input

Priority Opportunity Sites

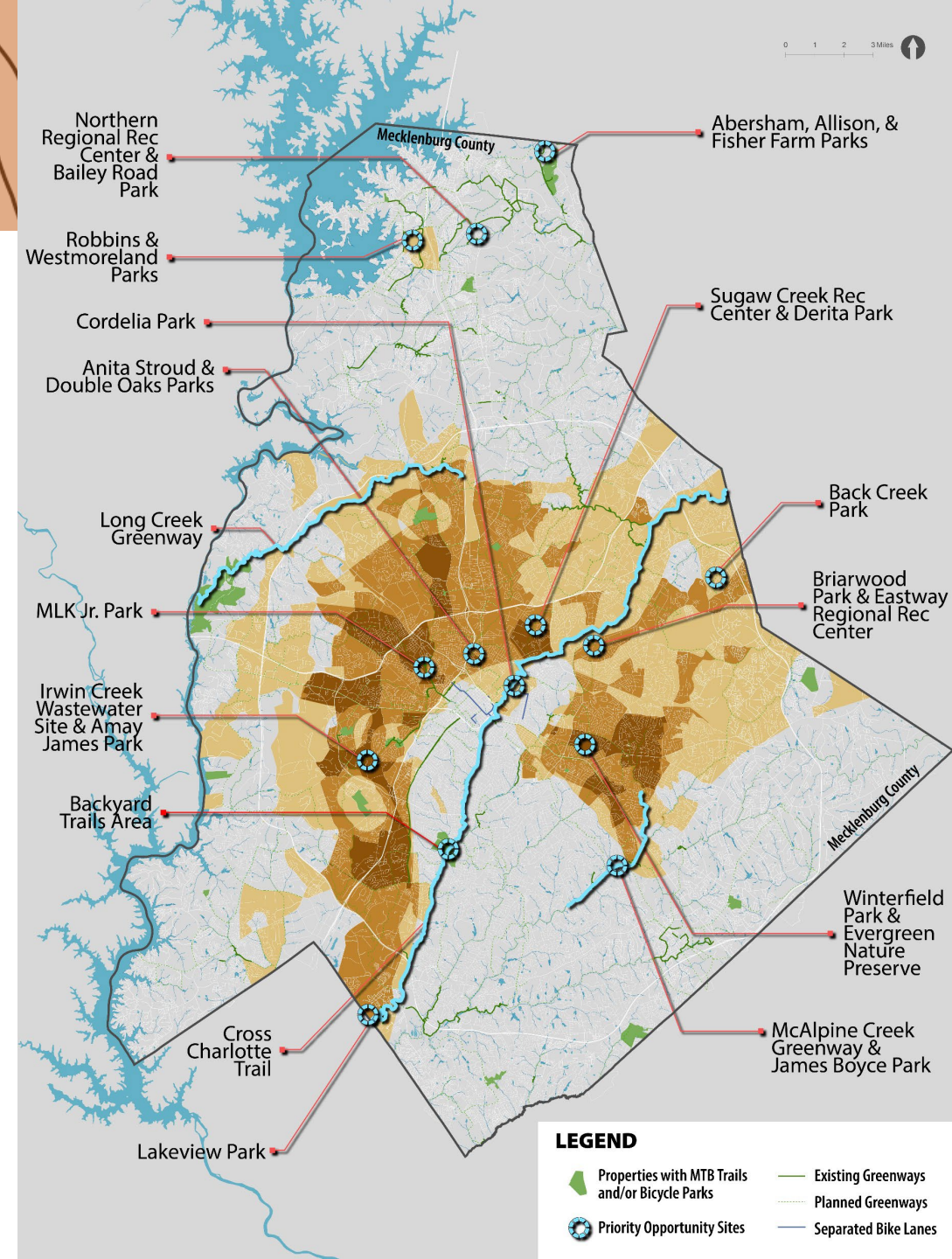


Priority Opportunity Sites

16 recommended sites

Including...

- 13 in areas identified by the gap analysis
- 2 recommended to expand MTB assets on existing sites (*Backyard Trails Area and Fisher Farm Park Area*)
- 3 in North Meck Towns; 1 in Pineville



Priority Opportunity Sites

Northern Regional Recreation Center / Caldwell Station Creek Greenway / Bailey Road Park Town of Cornelius + Mecklenburg County Park & Recreation

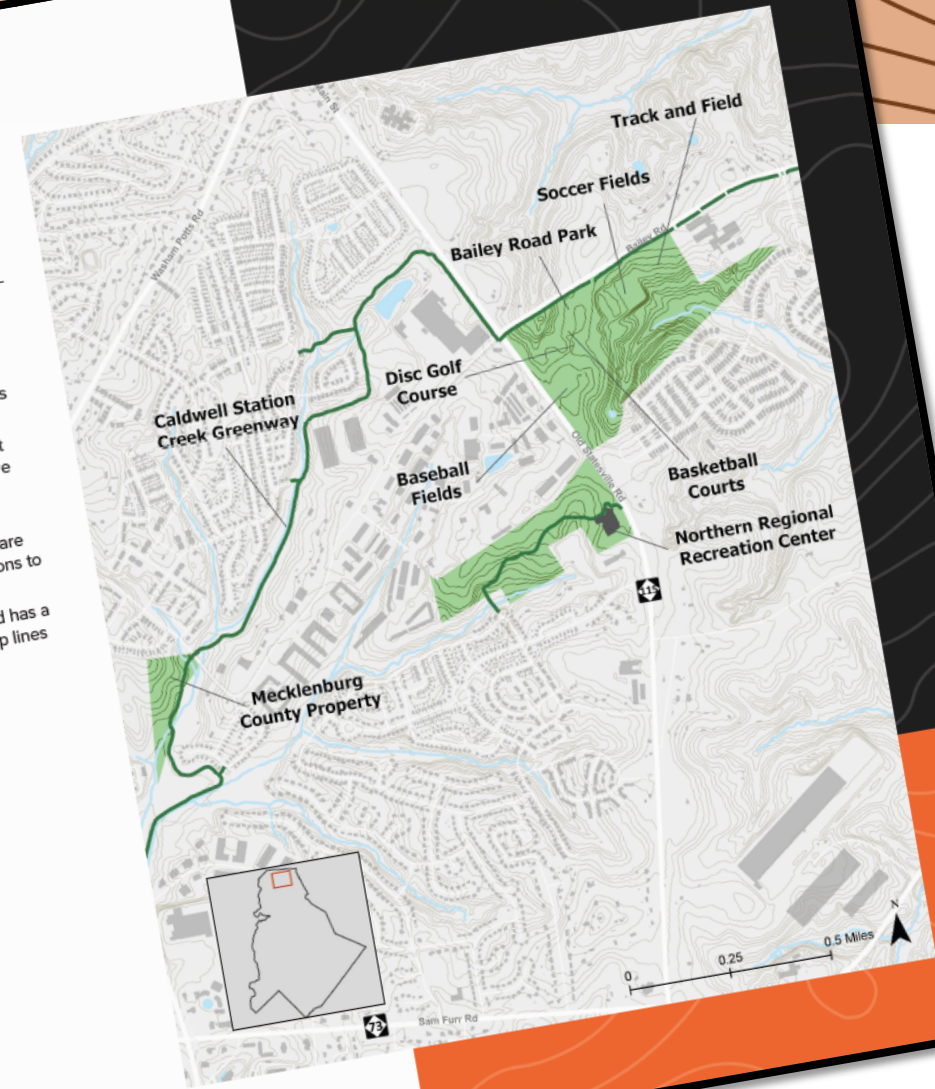
102 acres
(combined acreage)

Why is this a priority opportunity site?

- Bailey Middle School hosts an [Outride: Riding for Focus](#) cycling education program, which "uses cycling as a tool to promote physical, emotional, and social well-being in youth." This priority opportunity site offers an opportunity to support that existing program with short MTB trails and/or bicycle parks that Outride students could use on park property adjacent to the middle school.
- MTB trails and bike parks would help to strengthen the bicycling culture and demand that already exists at Bailey Middle School. There are a significant number of students who ride to school, and PE teachers have set up a mentorship program among students to support their peers in riding.
- The Northern Regional Recreation Center property includes a short existing greenway that is planned to connect through future projects to the broader greenway network in north Mecklenburg County. There are opportunities for the development of a pump track and skills area on that property with direct connections to the greenway network.
- A Mecklenburg County Owned property along Caldwell station creek greenway just south of Bailey Rd has a clearing from an old home site and ~30' of elevation change. It would be well suited for bike park jump lines and a pump track accessible via the greenway network.

Recommended Facilities for Consideration

MTB trails; pump track; skills area, jump lines



Cut sheets for each site

- Why it is a priority site
- Property owner/manager
- Acreage
- Recommended MTB facilities / bike parks for future consideration



RECOMMENDATIONS



RECOMMENDATIONS
BUILD!





Start with the **Priority Opportunity Sites:**

- Identify the “priority opportunity sites” that are on the county’s 5-year capital improvement plan and integrate MTB trails and/or bicycle parks within those planned investments through the public engagement process
- Review the remaining “priority opportunity sites” that are not on the 5-year capital improvements plan and identify opportunities to advance high priority projects via other funding methods

Priority recommendations are highlighted.





Recommendations for growing the network of MTB trails & bicycle parks in Mecklenburg County

- Build 3 youth-focused MTB skills areas in the next 5 years
- Build beginner-level MTB trails adjacent to existing greenways
- For greenways in planning and design, integrate parallel MTB trails where possible
- Collaborate with the Charlotte Bicycle Program to explore opportunities for city capital improvement projects to integrate/connect MTB facilities
- Build more wooden features to supplement existing trails
- Accommodate/encourage bike polo

Priority recommendations are highlighted.





RECOMMENDATIONS
ACTIVATE!



ACTIVATE

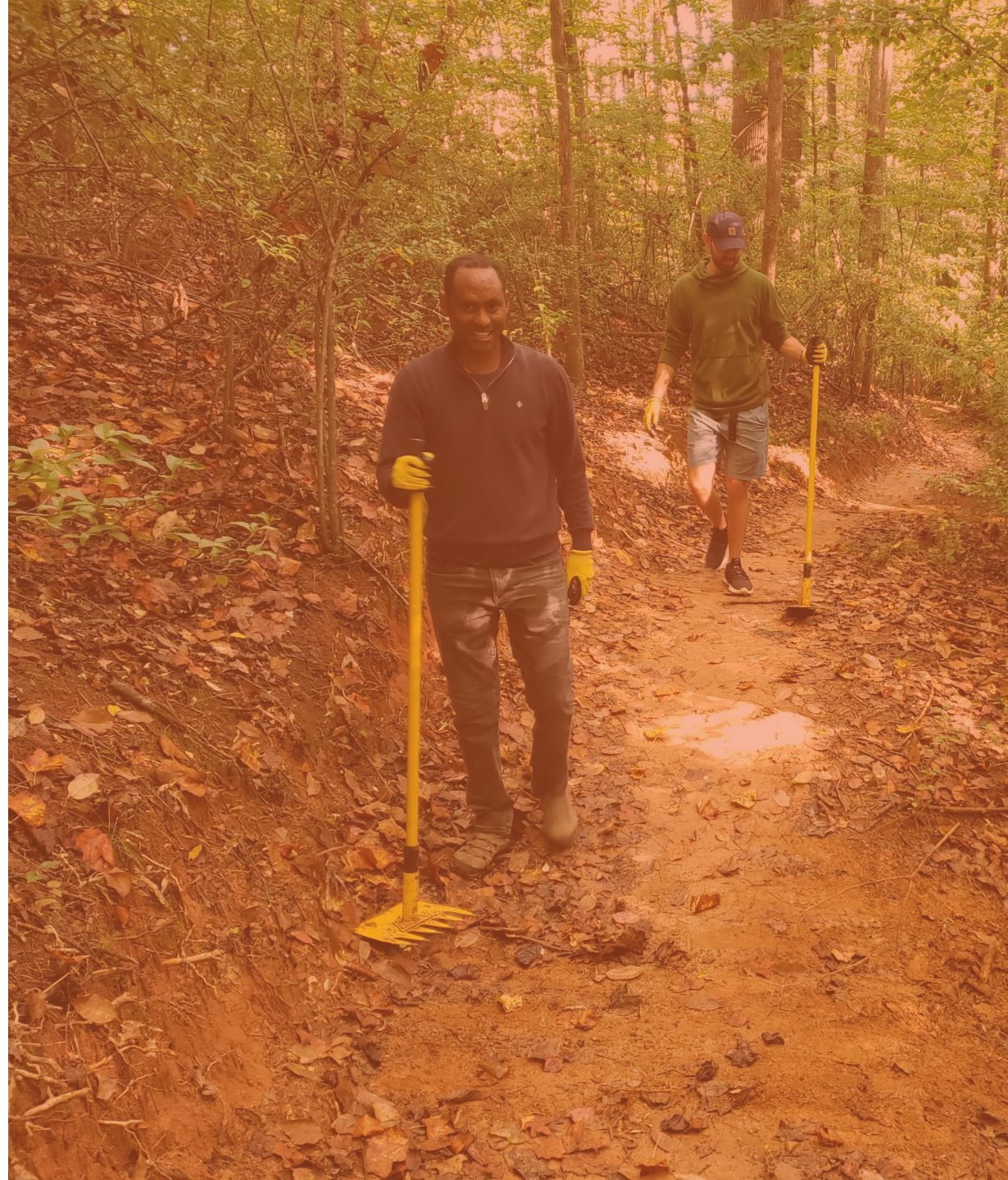
Recommendations for expanding MTB education, outreach, and competition programming

- **Grow THTB to have paid staff**
- Expand the region's multi-day MTB festival
- Up your communications game
- Recruit and host a regional/national MTB race event
- Expand youth & adult education programming by partnering with existing vendors
- Organize “learn to MTB” programming for youth/adults
- Coordinate event/competition program with partner organizations
- Host “Community Build/Maintenance Days”

Priority recommendations are highlighted.



RECOMMENDATIONS
MAINTAIN!



MAINTAIN



Recommendations for improving the maintenance and management of MTB trails and bicycle parks

- Work towards dedicating county resources to support MTB trail maintenance
- Develop a tools library and maintenance assets management system
- Create maintenance plans for major MTB facilities
- Provide professional training for maintenance volunteers
- Improve legacy trails

Priority recommendations are highlighted.



WHAT'S WORKING NOW — FRED ALEXANDER PARK PUMP TRACK

Mecklenburg County Park & Recreation recently completed a series of improvements to Fred Alexander Park in north Charlotte. Among those improvements was the first asphalt paved pump track installed by Mecklenburg County.

Staff had been looking for opportunities to add a paved pump track somewhere within the County park system, and they noticed that most of the kids using Fred Alexander Park arrived by bicycle. During public engagement to discuss the park improvements, County staff polled the community about different options for park amenities. A bicycle pump track ranked highly and was included in the final park design. The County used a specialty contractor with experience constructing paved pump tracks to ensure it was designed and built correctly. The total park improvements budget was \$580,000, and the total cost of the pump track was approximately \$260,000.

Residents and community partners have had very positive reactions to the pump track. Bike patrol officers from the Charlotte Mecklenburg Police Department (CMPD) are excited about the opportunity for kids to come to the park and interact CMPD while doing something fun. The Tarheel Trailblazers are working with the County to explore opportunities for constructing a beginner-level MTB trail in the wooded area near the pump track that would leverage the community enthusiasm for the pump track and introduce more riders to mountain biking.

Because this is Mecklenburg County's first asphalt pump track, it also provides a great opportunity to evaluate and learn more about the maintenance and programming necessary to support future paved pump track installations.



Grand opening event for the Fred Alexander Park pump track, the first asphalt paved pump track installed by Mecklenburg County Park & Recreation (above).



Site plan for recently completed improvements to Fred Alexander Park (right).

THANK YOU!!!



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