Technical Overview

- To help this meeting run as smoothly as possible, please consider the following tips:
  - For best audio quality, use the “call in” feature and listen on your phone
    - Also, using headphones with a built-in mic will help reduce ambient noise
  - Please remain muted at all times, unless you are speaking
  - Disconnecting from any VPN or third-party connection may increase bandwidth and help maintain connectivity
- Video is encouraged but not required
- This meeting will be recorded and shared with committee members who were unable to attend
- Please take a moment to familiarize yourself with the Webex platform:

Audio options (incl. call in) | Video on/off | View list of participants | Open/close Chat Panel | Exit meeting

CHARLOTTE WATER

Stowe Regional Water Resource Recovery Facility

Community Stakeholder Committee

Meeting #3 | May 27, 2021

CHARLOTTE WATER

Agenda

- Welcome & Introductions
- Project Update
- Community Benefit Project
- Next Steps

Meeting Objectives

Introduce new members of the committee to each other and project team

Provide update on project status

Share community feedback and get additional guidance from committee

CHARLOTTE WATER
Stowe Regional
Water Resource Recovery Facility

Welcome & Introductions

Who is in the room?

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Stowe Regional

Water Resource Recovery Facility

Community Stakeholder Committee

The Community Stakeholder Committee will help Charlotte Water **understand the key concerns and perspectives** of their stakeholders, **provide input on communications efforts and opportunities for engagement**, and **act as a sounding board for key decisions** to be made through project development process for the future Stowe Regional Water Resource Recovery Facility (WRRF).

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Water Resource Recovery Facility

Committee Goals

- Generate community awareness and support of the project.
- Gain better understanding and anticipation of public issues and concerns.
- Build stronger relationships and partnerships within the impacted community.
- Identify cross-promotional and consolidated community engagement opportunities.
- Generate information to inform Charlotte Water Technical Team decisions.
- **Assist with the visioning process for a Community Benefit Project.**

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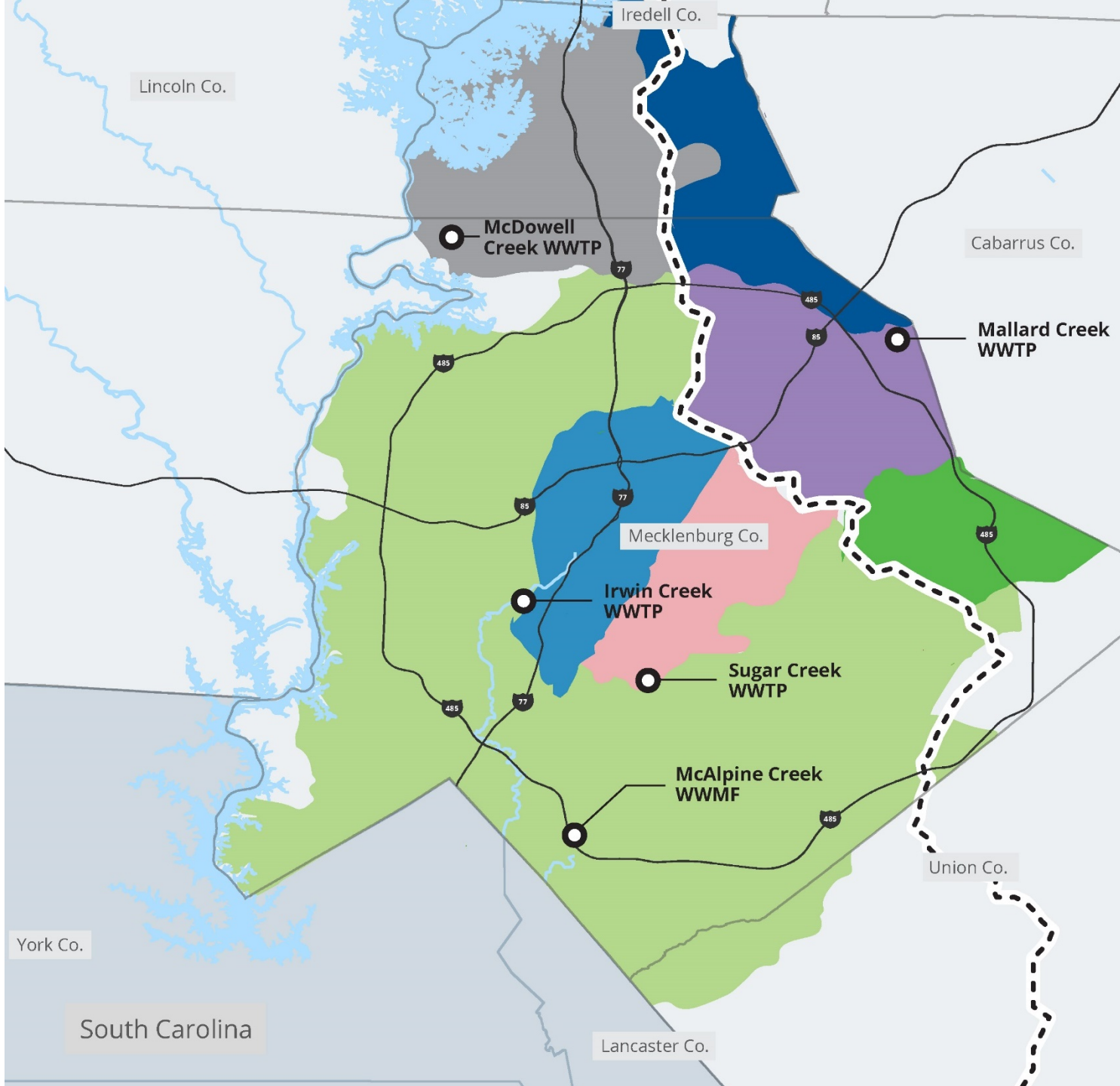
Stowe Regional
Water Resource Recovery Facility

Project Overview

Charlotte Water's System

- Five major wastewater treatment plants (WWTP)
- 123 MGD (Wastewater Treatment Capacity)
- Two package WWTPs
- 82 pump stations
- 4,330 miles sewer mains
- Service area: (all or portions of)
    - Mecklenburg Co.
    - Cabarrus Co.
    - Union Co.
    - Iredell Co.
    - Lancaster Co., SC
    - York Co., SC



Stowe Regional WRRF

As our community continues to grow, we will **need the ability to process more wastewater**. The Stowe Regional Water Resource Recovery Facility (WRRF) will be a **regional approach to wastewater treatment**, **serving** western **Mecklenburg County** and the **Belmont** and **Mount Holly** communities in eastern Gaston County.

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Water Resource Recovery Facility

Project Partners

CHARLOTTE WATER

City of Belmont North Carolina 1895

MOUNT HOLLY
Connecting Community & Nature

CHARLOTTE WATER
Stowe Regional
Water Resource Recovery Facility

This project will…

Process 15 million gallons of wastewater per day.

Consolidate two wastewater treatment plants into one state-of-the-art facility.

Be more energy efficient, reducing our carbon footprint.

Eliminate extensive pumping system currently in operation.

Contribute to our community.

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Stowe Regional

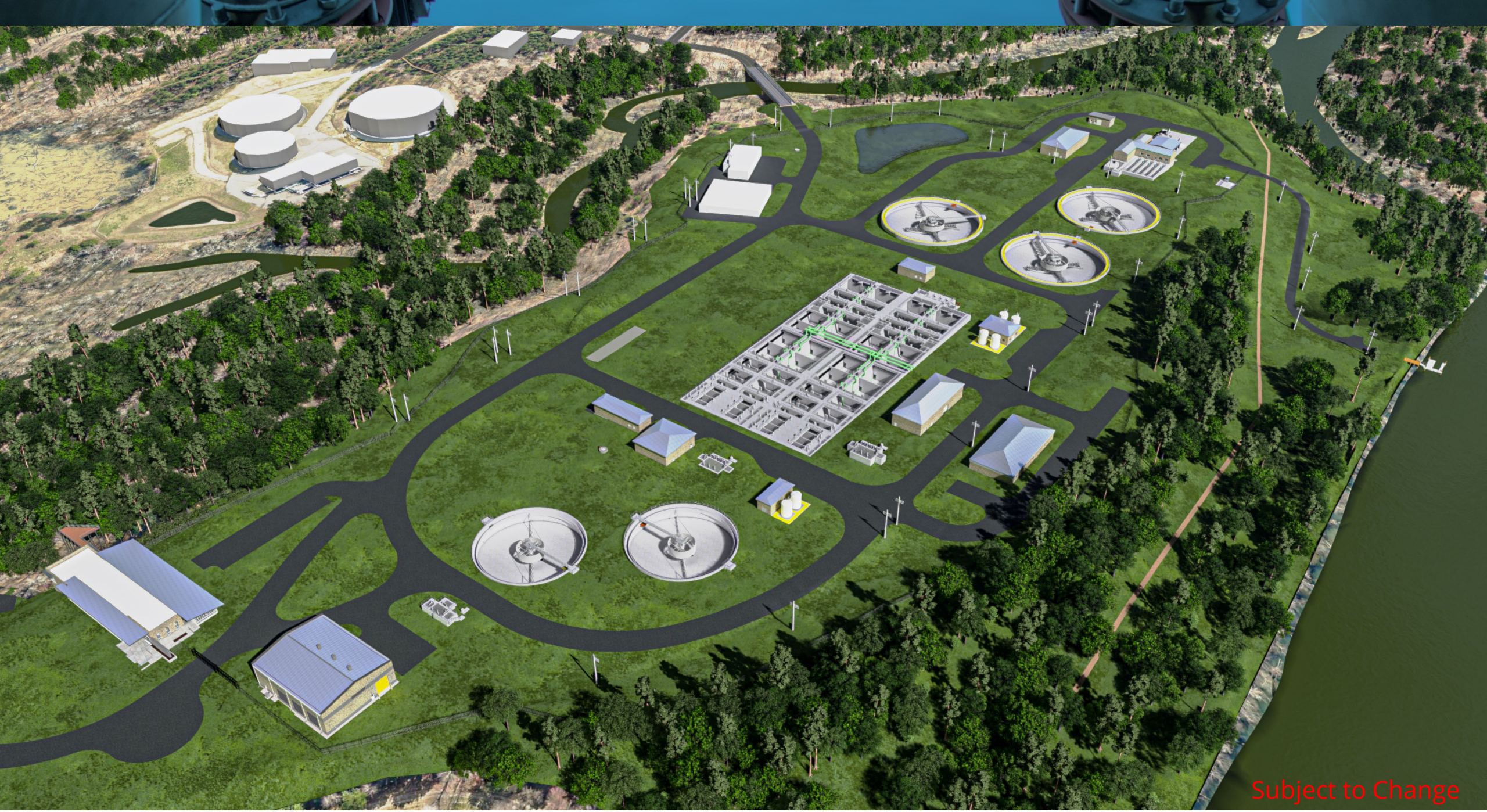
Water Resource Recovery Facility

Project Update

Projects Status

- Stowe Regional Water Resource Recovery Facility
- Mount Holly Pump Station and Force Mains
- Belmont Pump Station and Force Mains
- Stowe Access Roads
- Regional Solids Transfer Project

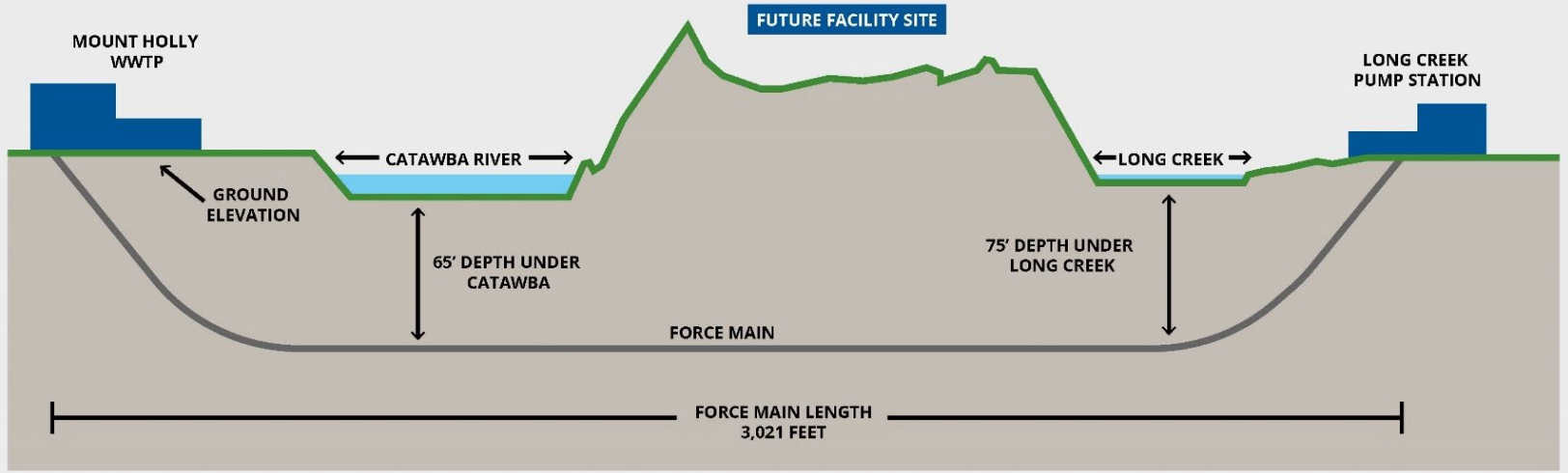
Subject to Change


Subject to Change

Fly Thru

Stowe Entrance Sequence - YouTube

Pipeline Installation Under the River



SUBJECT TO CHANGE

CHARLOTTE WATER

Stowe Regional Water Resource Recovery Facility

Public Workshop

Charlotte Water's Commitment

We are committed to implementing a Community Benefit Project on the land around the new Stowe Regional Water Resource Recovery Facility that would serve as an enriching community amenity for neighbors. We want this Community Project to create a vibrant public space or a meaningful community feature that encourages connectedness and well-being in our project community.

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Water Resource Recovery Facility

Decision Criteria

Cost	Operation & Maintenance	Sustainability / Efficient Use of Resources	Community Impacts / Good Neighbor
• Capital cost • O&M cost • Cost risk factors • Future expansion	• Ease of operation • Ease of maintenance • Process flexibility • Future process requirements • Treatment risk factors • Success of previous installation	• Potential for resource recovery • Resiliency • Energy footprint	• Alignment to city-wide goals • Odor generation • Impact to stakeholders • Noise / visual aesthetics

Process

1

Community Values and Project Ideation

2

Develop & Present a Range of Alternatives

3

Identify a Preferred Alternative

4

Project Implementation

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Engagement Timeline

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Stowe Regional Water Resource Recovery Facility

Public Workshop Results

January 27 – March 5, 2021

Workshop Tools

SURVEY

Help us learn more about those who live, work and play in the Catawba River area!

Participate!

IDEAS

Share your thoughts & ideas on what your community wants out of a Community Benefit Project!

Participate!

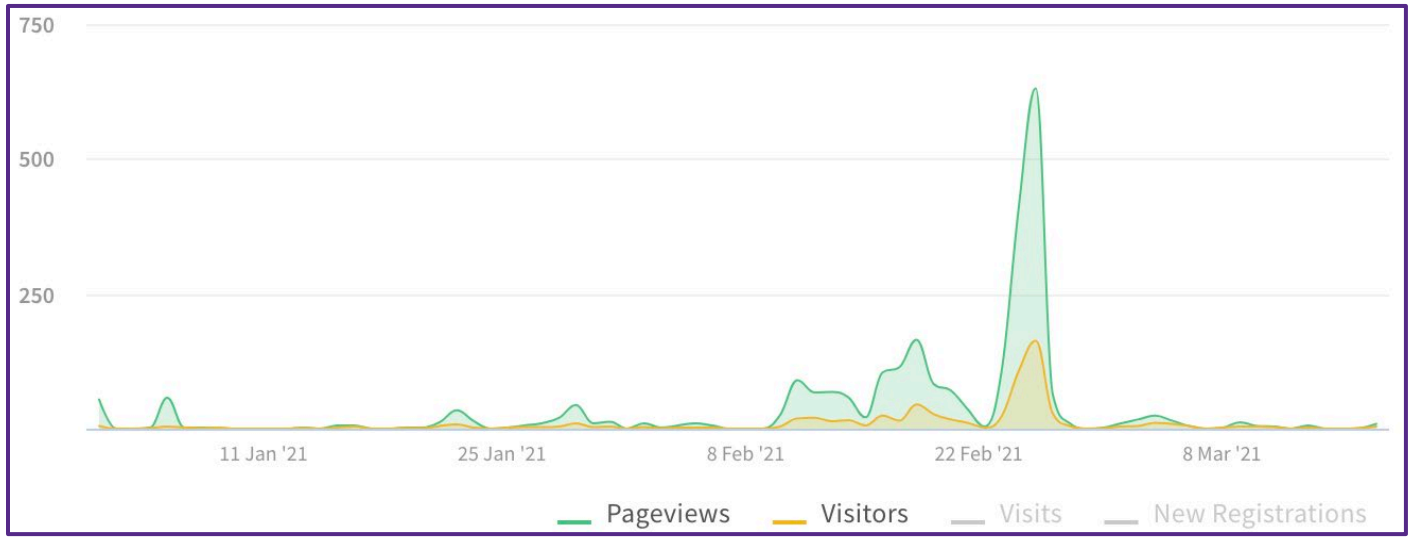
STORIES

Do you have a favorite memory or experience in the area? If so, we hope you'll share it with us!

Participate!

Site Overview
ACTIVITY

TOTAL VISITS	MAX VISITS PER DAY	ENGAGED VISITORS	INFORMED VISITORS	AWARE VISITORS
788	163	259	264	548



Engaged Visitors: Participated and contributed to each of the tools

Informed Visitors: Visited and reviewed the tool pages

Aware Visitors: Visited at least one page of the workshop

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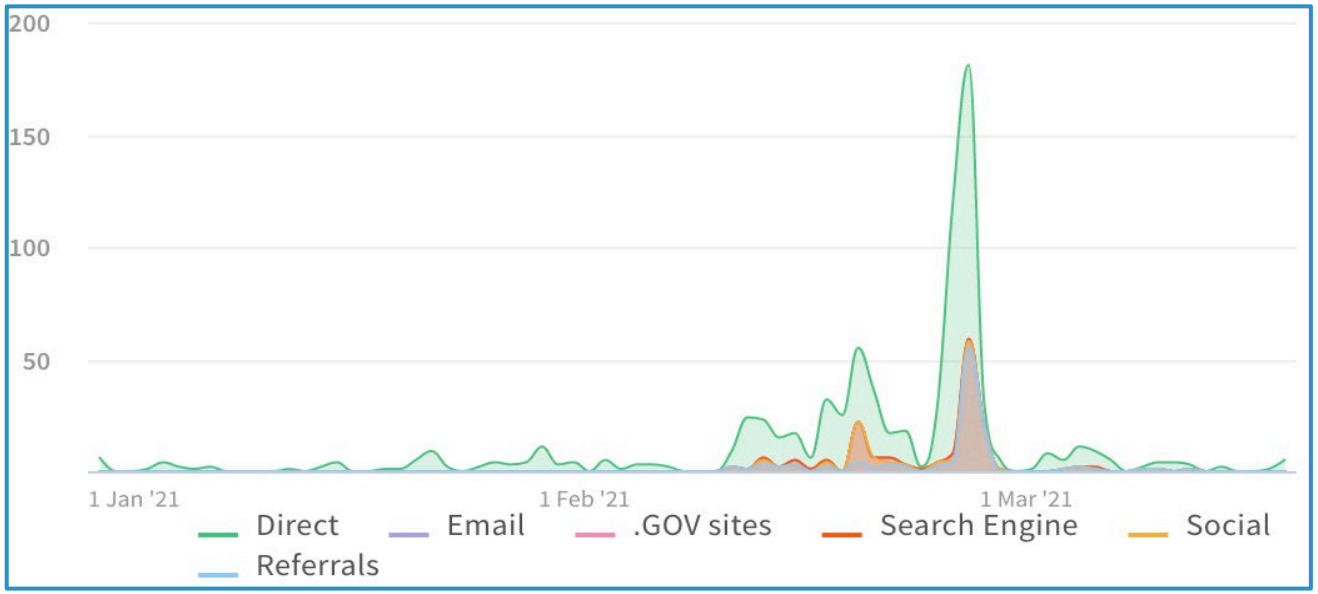
Site Overview
TRAFFIC SOURCES



TRAFFIC CHANNEL	AWARE VISITS	INFORMED VISITS	ENGAGED VISITS
Direct (mailer, QR code):	628	274(43.6%)	259(41.2%)
Social (boosted posts):	36	5 (13.9%)	5 (13.9%)
Search Engine:	13	4(30.8%)	3(23.1%)
Referrals:	111	61 (55%)	61 (55%)

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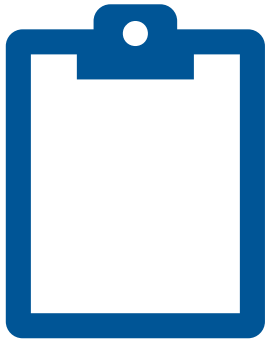
Community Workshop Analytics



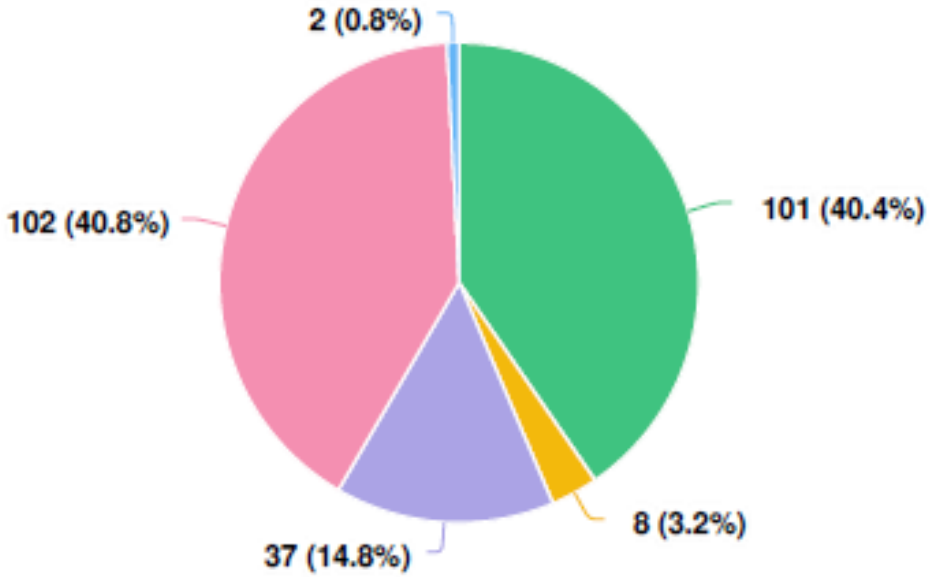
257 Survey Responses

13 Ideas Provided

Survey Results

Survey Question 1

What is your relationship to the Catawba River area?



Question options

- I live in the area
- I work in the area
- I participate in recreational activities in the area
- I go to school in the area
- I am a business/property owner in the area

Optional question (250 response(s), 7 skipped)
Question type: Radio Button Question

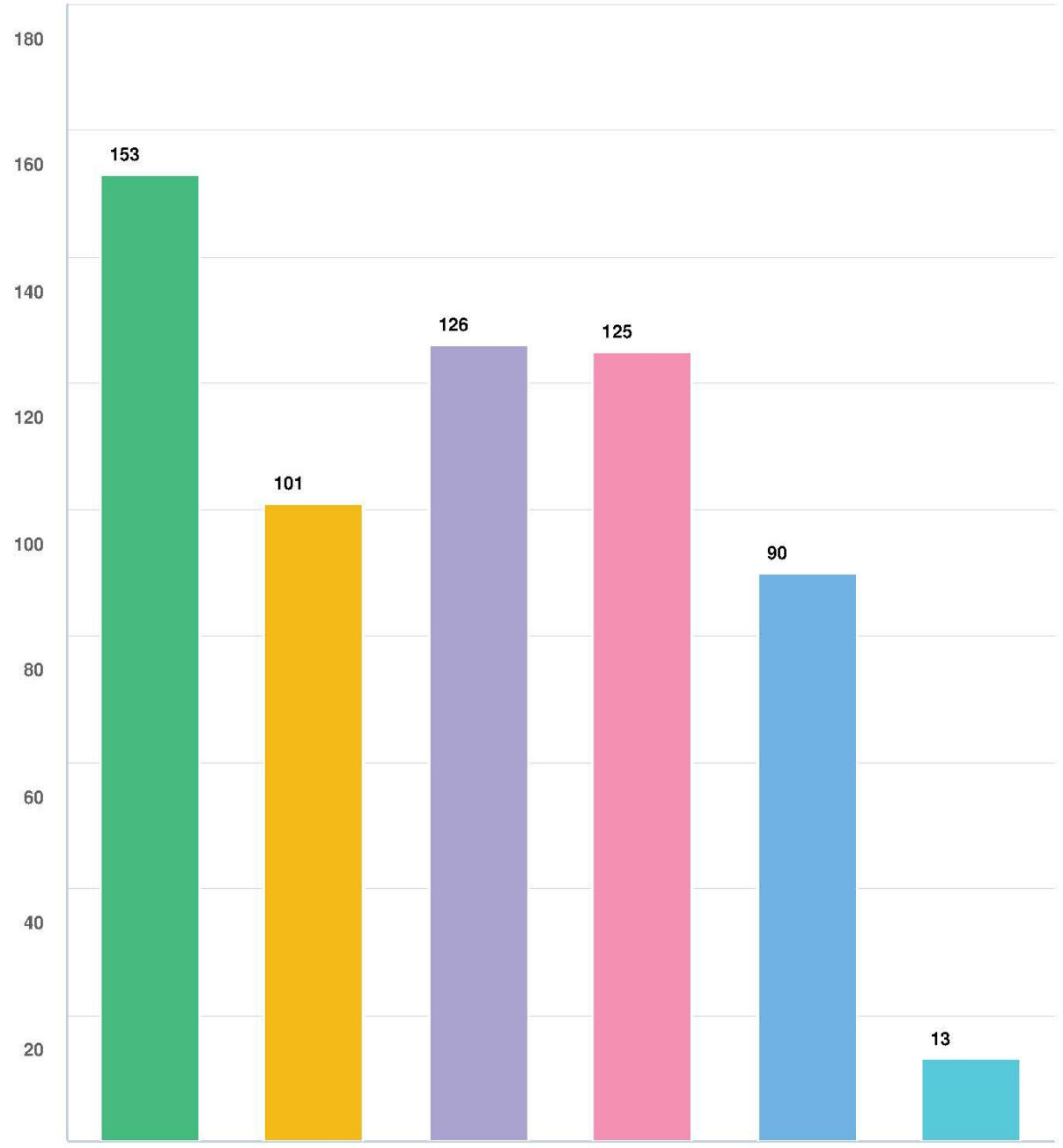
Survey Question 2

What do you think is missing from this area that the Stowe Community Benefit Project could help address?

Question options

- Recreation: Trails, Hiking, Biking, etc.
- Playgrounds
- Water Access
- Community Gathering/Event Spaces
- Outdoor Learning
- Other (please specify)

Optional question (251 response(s), 6 skipped)
Question type: Checkbox Question



Survey Question 3

What do you love most about the Catawba River area?

Survey Question 3

What do you love most about the Catawba River area?

"Variety of activities and weather"

"Natural, undeveloped spaces for natural wildlife and recreation"

"The water."

"White Water Center, Latta Plantation, Tuckaseege Park"

"The indigenous history behind it. Please preserve it. Would be nice to hear more from the Catawba Indian Nation."

"The natural areas and character of small towns"

"The access to nature and the water. The opportunity for my family to ride bikes along a trail or get out for a change of scenery. We love to see other families doing the same thing."

"I love taking my dog swimming, and paddle boarding."

"The more rural feel of the area, extensive tree canopy coverage and the diversity of the area."

"Tree canopy along the river"

"Economic and racial diversity. Even though I live in Charlotte, the north west outskirts bordering Mt. Holly still feels like a small town. Access to the Catawba."

"I love the Thread Trail, kayaking or paddle boarding, and enjoying the public parks"

"The ability to create more mountain bike trails in a manner which sustains the natural character and water shed."

"Trees, water, and outside the city"

Survey Question 3

What do you love most about the Catawba River area?

"Closeness to nature"

"The Whitewater Center and their activities, mount holly traditional downtown and it's not too far away from Charlotte Uptown"

"Mental health benefits of the water."

"My school"

"Green spaces/trails/kayaking access points"

"The accessible trails"

"The large amount of green space and lack of heavy boat traffic."

"Natural area for wildlife and people to share"

"The recreational opportunities."

"Whitewater Center."

"The lack of intense development along the banks for the River, from Mountain Island Dam (Mount Holly side) to Dutchman's Creek to the USNWC to I-85. It is a little escape in a busy Charlotte Metro Area."

"Open spaces"

"I love to spend time on the water in my kayak."

"I love having access to a 'natural' river so close to Charlotte. It is a type of reprieve from a sprawling city. Future access to bicycle / hiker trails and greenways will only increase this accessibility to the area."

"I like to go fishing in the river."

"Tranquility and access to nature."

Survey Question 4

Do you have any questions or concerns about the Stowe Community Benefit Project?

Survey Question 4

Do you have any questions or concerns about the Stowe Community Benefit Project?

"That tree canopy will disappear, and not be replaced, due to construction activities."

"What adverse impacts to the environment and quality of life will it have."

"Primary concern would be transparency regarding beneficiaries. Hopeful for more youth programs and activities, including teens. For example: youth clubs, basketball court, tutoring, volunteer programs, etc."

"I would hope that the area is managed for not only the benefit of people, but also wildlife and nature by restoring ecosystems and managing invasive species."

"Are you moving the location?"

"What will it cost?"

"Please consider adding more well lot safe places for public water access. It is always so crowded(even before COVID) that I feel like there are strangers on top of me."

"How will this project impact the quality of Mt Island Lake and the Charlotte drinking water?"

"Encroachment of expensive, politically hostile City of Charlotte control, services, etc. into Gaston County."

Survey Question 4

Do you have any questions or concerns about the Stowe Community Benefit Project?

"Yes. Is there a Strategic Plan for this long-term project?"

"Will this make our water bill go up even more?"

"Many public access areas become hangouts for undesirable activities. Provide security via cameras or police patrols to make visitors feel safe."

"Stench from Mt. Holly (and future treatment plants); increase in crime (car break ins at Tuck Park); traffic flow and congestion at parking areas."

"I hope it will be well programmed and connected via greenways.

"Pedestrian bridge across the river?"

"Will my utility bill be raised?"

"Smell, what portion of Gaston County taxpayers are going to contribute, how Charlotte will enhance for public use the area after implementing a permanent fixture."

"Who will program events and maintain the project?"

"I think it is a great way for the public to provide input on a beneficial community project."

"It's right upstream of the Whitewater Center. Concerned about noise, smells and pharmaceutical pollution."

Survey Question 4

Do you have any questions or concerns about the Stowe Community Benefit Project?

"Project will help the environment which helps the wildlife and people."

"More access to bike lanes connecting neighborhoods for commuters."

"Keep it natural and open for people to enjoy in a sustaining manner."

"As an avid user of our local trail systems I am particularly concerned about the impact that the construction of the new facility will have on the section of the Long Creek Trail that runs through the area. Will land and $ be set aside to re-route it?"

"Ensure sediment is contained."

"Please make sure that the existing Carolina Thread Trail is preserved."

"What will become of the network of bike trails? I personally use the trails to walk but I would hate to see the mountain bike trails reduced, thereby pushing the bicyclists into the pedestrian trails."

"That everything looks very nice to go for a walk."

"Will the water become unsafe, will there be less access to the river?"

"It could mess the park up."

"Need a beach/swim access."

Survey Question 4

Do you have any questions or concerns about the Stowe Community Benefit Project?

"Will it affect the air/water quality negatively?"

"How much will this effect water/sewage prices/property taxes? Will there be a smell emitting from the facility? Will the water be safe to be near/in? What happens with the contaminates removed from the water? Will you give tours of the facility?"

"Will there be light pollution to the natural area as a result of the Stowe project? Will there be increased noise? Will there be disrupted natural ecosystems and wildlife habitats?"

"Maybe pump water noise, extra traffic and not enough parking spaces."

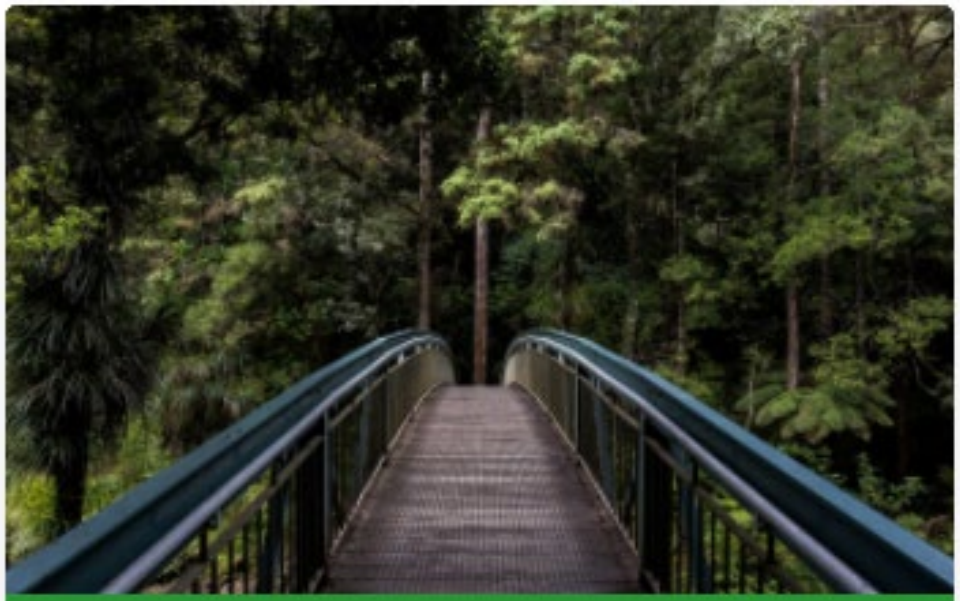
"Hoping it can reflect the beauty of the area and will be maintained properly."

"The creation of this facility near a community asset such as the USNWC and the resulting loss of trails both from the USNWC system and Caroline Thread is very concerning. While is it may be a "small" number of the total miles, they are key portions."

"Concerned about the limited amount of communication and news on the project."

"Where is it located?"

Suggested Ideas



IDEAS

Share your thoughts & ideas on what your community wants out of a Community Benefit Project!

Participate!

Suggested Ideas

Catawba River Group
2 months ago

Need a connector bridge (or Ferry) across the river close to Mt Island Dam to new Mt Holly trail and on to Whitewater Ctr.

Share 0 Comment 5

Colleen
2 months ago

Building a spray park near a playground or by water access.

A nice spray park where families can gather and cool off. It would be nice to have it near a playground or by water access

Share 0 Comment 6

Laura
2 months ago

Outdoor Educational Spaces

It would be great to have a space for teachers & students to gather outdoors, get their hands dirty and learn about all the great things nature has to offer. It would help encourage kids to take a step away from technology and connect with the outdoors and the world around them. I think an outdoor educational space would be beneficial to the schools, teachers & students in the area!

Share 0 Comment 4

Katie
2 months ago

Community Garden

Would be great to have a community garden that has a teaching space for workshops and classes for the community.

Share 1 Comment 3

MStanwood
2 months ago

Water access for kayaking or paddling

Share 1 Comment 2

PJ
2 months ago

It would be wonderful to have outdoor recreational bike/walking trails as well as water access for paddling.

Share 0 Comment 12

Brian
2 months ago

Brian

We need to build the Thread Trail bridge from Tuck Park to Mecklenburg to connect all the great trails on boths sides of the River.

Share 0 Comment 8

Suggested Ideas

MStanwood
2 months ago

bike lanes on belmeade dr or sidewalk

It would be great to have bike lanes on belmeade dr to be able to bike to this community facility

Share 0 Comment 3

BT
2 months ago

Connect Facilities

We need bicycle and pedestrian connections between public trails, parks and USNWC. Connectivity would allow for someone to explore the area and not just one particular spot. As for an immediate improvement on the Stowe property, river access for paddling and connections to the USNWC trails would be great features.

Share 0 Comment 1

MStanwood
2 months ago

Trails for running or biking, small market for snacks and water and dog treats

Share 0 Comment 3

Bert
2 months ago

Tie area trails into Long Creek Greenway for regional trail connections.

Share 0 Comment 6

Greg
2 months ago

Connector Bridge

Having a connector bridge from an area outside the USNWC and Stowe Facility to Mount Holly would be a regional attraction, linking greenways in Charlotte, Mecklenburg to those in Gaston County, a vision of the Carolina Thread Trail. Many groups have participated in a formal study, including a recent undertaking in Mount Holly, which was made possible by a State grant.

Share 0 Comment 4

JDiazButler
a month ago

We need a pedestrian bridge over the Catawba River and safe crosswalks from downtown MH/residential areas to the greenways and parks.

Share 0 Comment 1

Site Overview
WORKSHOP/INSIGHT TAKEAWAYS

- **TOOLS HIGHLIGHT:** 72.46% of Overall Site Visitors participated in some way with at least 1 of the 3 Tools. The majority of all participation was focused on the Survey tool

- **TRAFFIC SOURCE HIGHLIGHT:** 79.7% of Total Site Visits were sourced from the Direct Mailers

- **SURVEY PARTICIPATION HIGHLIGHT**: 81.3% of Survey Participants shared that their relationship to the area was either: (1) They went to school in the area or (2) live in the area
  - The majority of the (102) participants that noted they went to school in the area responded that they did not currently have a relationship to the river/have ever visited the river.

- **SURVEY PARTICIPATION HIGHLIGHT:** 26% of participants chose that Recreational Activities were what they thought was missing from the area, followed by Water Access at 21.18%.

- **SURVEY PARTICIPATION HIGHLIGHT:** 39% of responses to what participants loved most about the area focused on the recreational activities available (Whitewater Center/Thread Trail/Fishing)

- **QUESTIONS/CONCERNS HIGHLIGHT:** 46.9% of responses about Concerns/Questions about the project involved how it may negatively impact the environment/water pollution & quality

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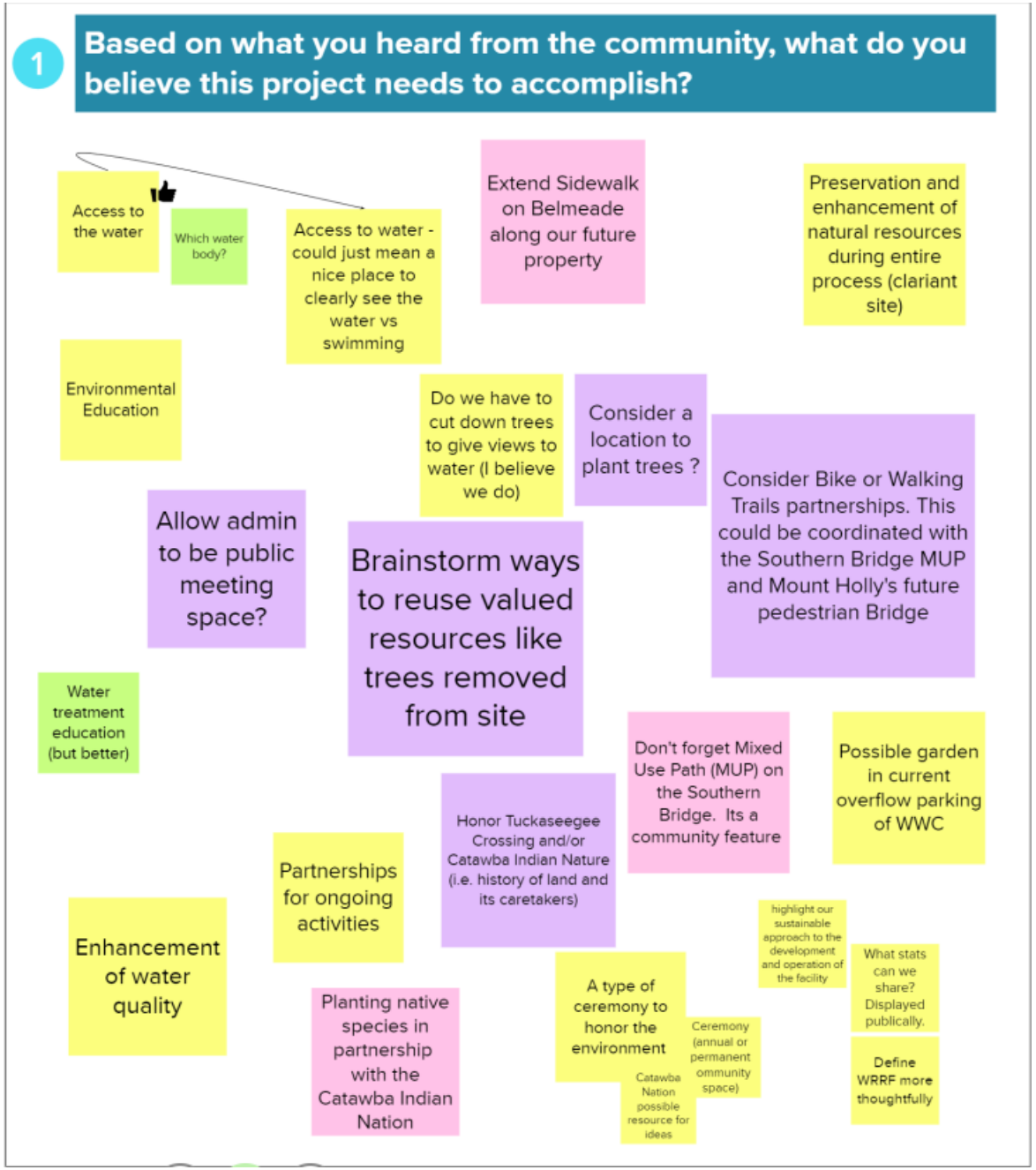
Feedback Analysis Exercise



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Mural Exercise

https://app.mural.co/t/hdr4613/m/hdr4613/1622118119392/3d53950ae89519d50d4f90b261f6de83ccd235e6?sender=uf0681a65824b1d3dca894785

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Questions

CHARLOTTE WATER

Stowe Regional

Water Resource Recovery Facility

StoweRegionalWRRF.com

Dial 311

@CLTWater

Operated by the City of Charlotte

Project Update

Stowe RWRRF

- Completed Selection for the Design Build team
- Preliminary Design underway.
- Treatment process selection has been shortlisted to 2 alternatives.
- Detailed Design anticipated to go to council and begin in Q4 2020

Stowe RWRRF – Biosolids Pipeline

- Design team under contract. Initial field work to begin Q4 2020

Mount Holly Lift Station

- Multiple GMP's going to council, the second of which was on September's council agenda.
- Value engineering underway to reduce project costs. Revised design deliverables due early 2021.
- Permitting is ongoing
- Bulk of construction start anticipated in Q2 2021.
- Rehabilitation of existing Long Creek PS construction is underway.

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Project Update

Stowe RWRRF Access Road & Bridges

- Completed 90% design. Permitting is ongoing
- Anticipated for public advertisement in Q4 2020 (traditional delivery) and construction in Q1 2021
- Charlotte Water is in ongoing negotiations to purchase property for a dedicated access to the Facility

Belmont

- Issue RFQ for the Design Build Team in Q1 2021

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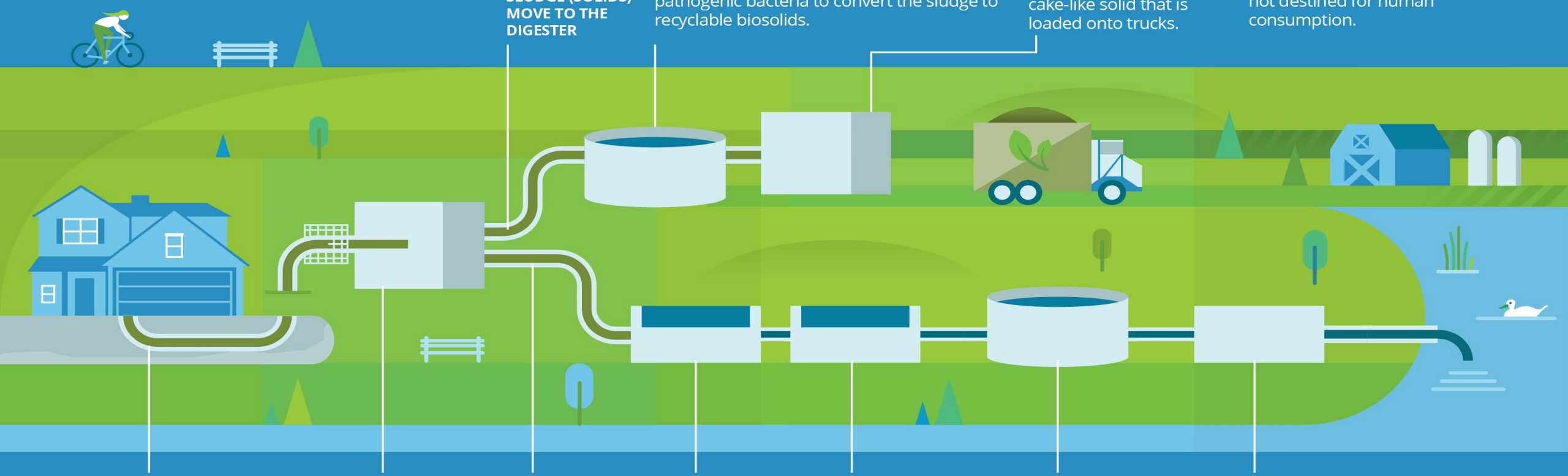
WASTE WATER TREATMENT



WASTE WATER FROM HOME ENTERS SANITARY SEWER

PRIMARY TREATMENT:
Grit Removal (gravity pulls larger particles to the bottom) and Primary Clarifier (solids are separated from water by settling to the bottom of the clarifier)

LIQUID AND SMALL SOLIDS

SLUDGE (SOLIDS) MOVE TO THE DIGESTER

AERATION BASINS:
Air is circulated and bacteria (bugs) remove dissolved pollutants, phosphorus and nitrates.

DIGESTER:
A biological process that reduces the volume of organic materials and destroys pathogenic bacteria to convert the sludge to recyclable biosolids.

SECONDARY CLARIFIER:
Additional solids are separated from the liquid and piped back to the biosolids digester.

DEWATERING:
Water is removed from the processed biosolids to produce a cake-like solid that is loaded onto trucks.

EFFLUENT FILTRATION:
Liquid is filtered to remove any remaining small particles.

DISINFECTION:
Effluent is disinfected with either ultra violet light or chlorine.

BIOSOLIDS:
Used as a soil amendment and organic fertilizer for crops not destined for human consumption.

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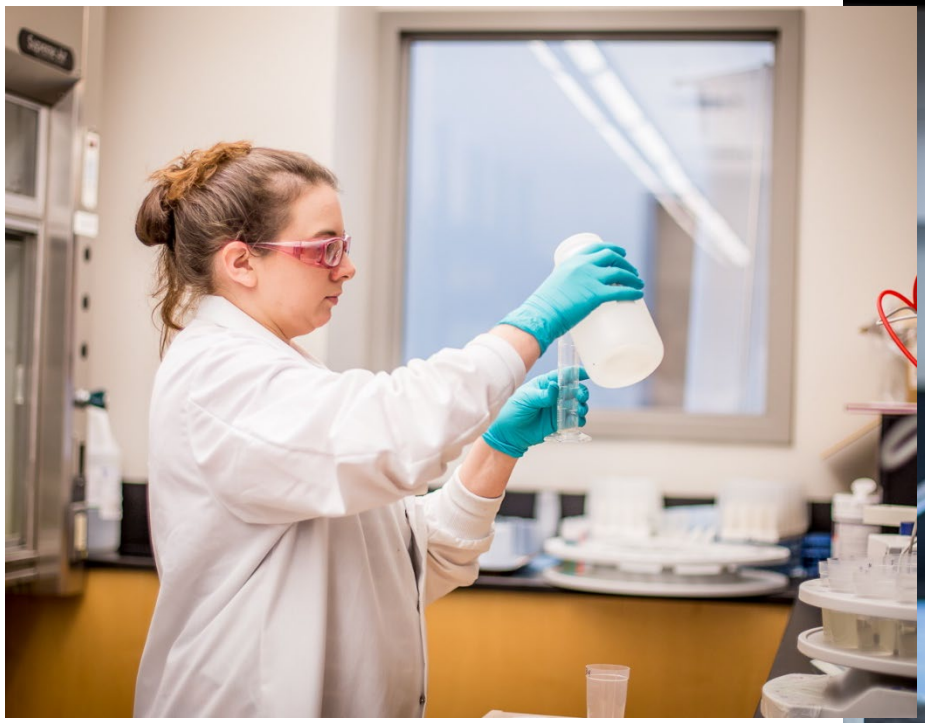
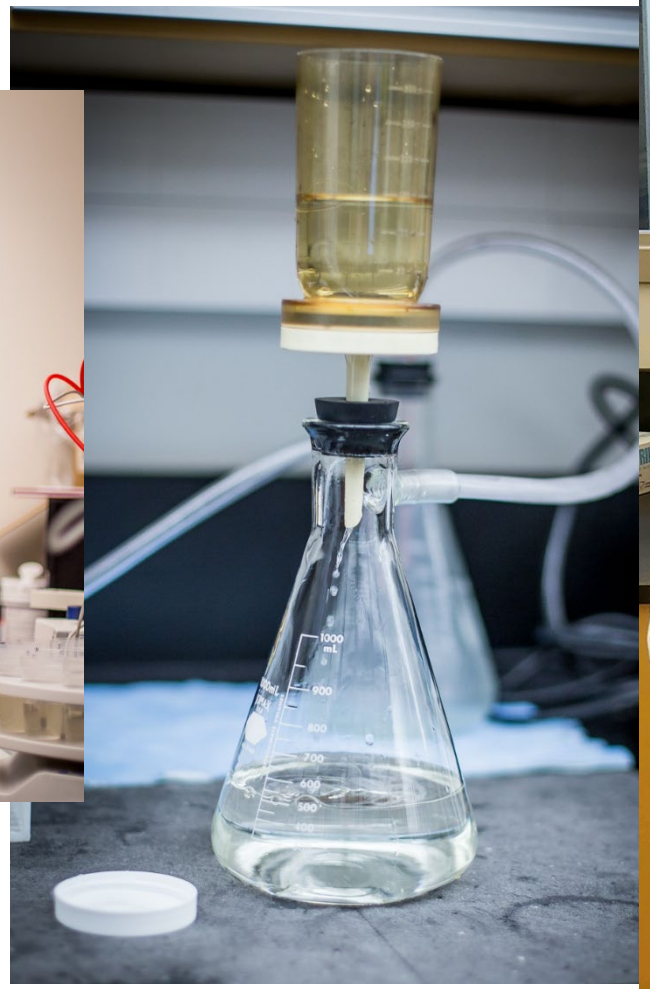
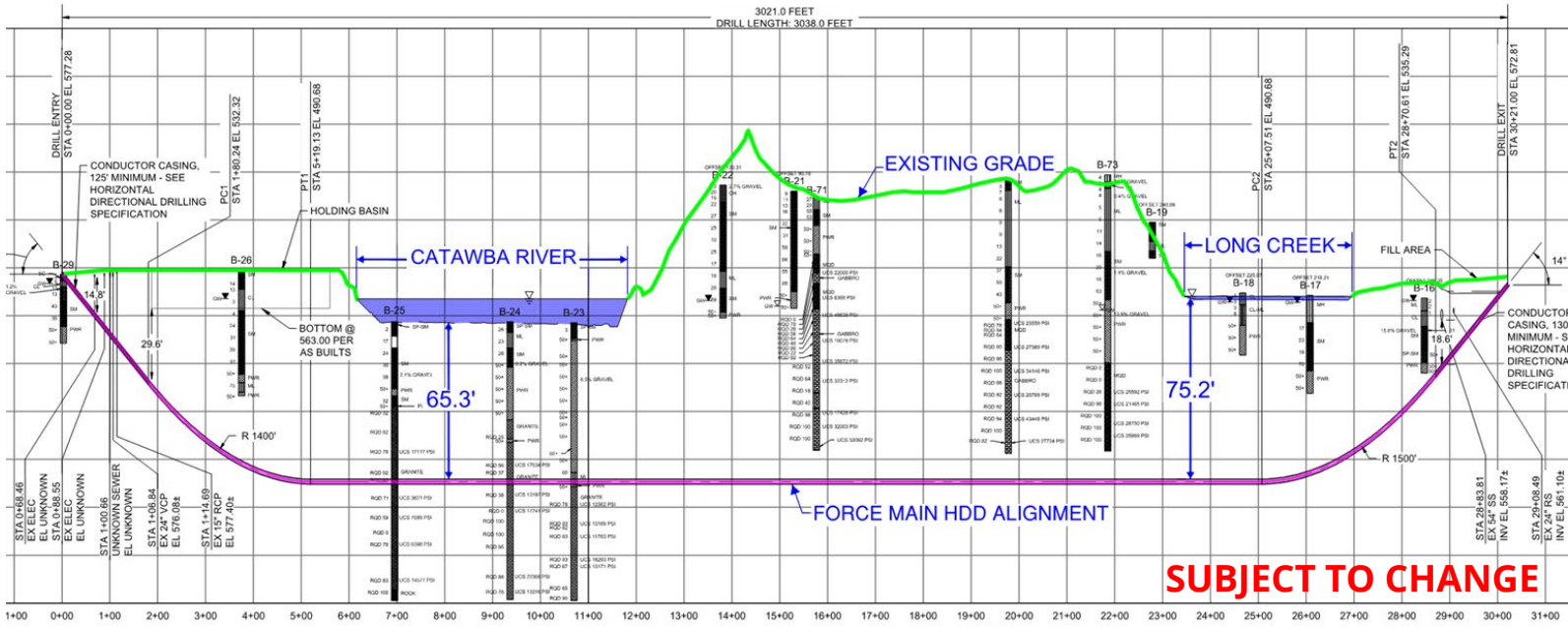
Water Testing

Water Testing





Pipeline Installation Under the River