



PROPOSED AGENDA
Bermuda Run Town Council Meeting
Tuesday, November 9, 2021
6:00PM

Bermuda Run Town Hall

Mission: "The Town of Bermuda Run exists to provide core public services that enhance the quality of life for its residents and an environment for the business community to thrive".

1. Call to Order

2. Pledge of Allegiance

3. Moment of Silence

'It is the intent of the Town Council to solemnize the proceedings of this meeting and the business brought before the governing board, to offer the opportunity for a reflective moment of silence.'

4. Adoption of the Agenda

Motion: _____ Second: _____ In Favor: _____ Opposed: _____

5. Approval of the October 12, 2021 Town Council Meeting Minutes

Motion: _____ Second: _____ In Favor: _____ Opposed: _____

6. Citizens' Comments

7. Information Item

A. Presentation: Davie County Public Utilities – Master Plan Modeling 2021

Johnny Lambert, Utilities Director, will present as he has done for the Davie County Commissioners.

8. Proposed Action Item

A. Budget Amendment – General Fund Acceptance from Bermuda Run Community Vision Fund

The Town Manager recommends the 2021-2022 General Fund Budget be amended to accept \$7,000 from the Davie County Community Foundation as revenue and expend \$7,000 for expenses related to the "Christmas in the Town of Bermuda Run" event to be held December 5, 2021.

Motion: _____ Second: _____ In Favor: _____ Opposed: _____

9. Town Manager Comments

10. Council/Mayor Comments

11. Adjourn

Motion: _____ Second: _____ In Favor: _____ Opposed: _____

Town of Bermuda Run

Town Council Meeting Minutes

October 12, 2021 – 6:00 PM

The Town Council of Bermuda Run held its scheduled meeting on Tuesday, October 12, 2021 at 6:00 PM. The meeting was held at the Bermuda Run Town Hall.

Council Members Present: Mayor Rick Cross, Curtis Capps, Mike Ernst, Chris Fowler, and Ken Peacock

Council Members Absent: Heather Coleman

Also Present: Lee Rollins, Town Manager; Cindy Poe, Town Clerk

Call to Order Mayor Rick Cross called the meeting to order.

Pledge of Allegiance

Moment of Silence

It is the intent of the Town Council to solemnize the proceedings of this meeting and the business brought before the governing board, to offer the opportunity for a reflective moment of silence.

Adoption of the Agenda

Council Member Mike Ernst made a motion to approve the agenda. Council Member Curtis Capps seconded the motion. The motion was approved by a vote of four (4) in favor and none opposed.

Approval of the September 14, 2021 Town Council Meeting Minutes

Council Member Ken Peacock made a motion to approve the September 14, 2021 meeting minutes. Council Member Chris Fowler seconded the motion. The motion was approved by a vote of four (4) in favor and none opposed.

Public Comments - None

Presentation: Davie County Tourism Update

Davie County Chamber of Commerce President, Caroline Moser, provided an overview of the Davie County Tourism and Development Authority.

Council/ Town Manager/Mayor Comments

Chris Fowler – Appreciates Caroline’s presentation and plans to visit Riverpark (Cooleemee) soon.

Mike Ernst – Likes being educated on county efforts; encouraged everyone to visit Truist Sports Park.

Curtis Capps – Thanked everyone for their attendance.

Ken Peacock – Feels that this was a successful meeting, stating he learned a lot.

Lee Rollins – In 2017, the Council worked with DFI regarding a hotel project and visuals for hotel near WinMock are still here. Hampton Inn in Bermuda Run generates a 3% occupancy tax = \$70,000 per year. Scott Wollaston with Truist Sports Park which averages 20,000 room nights per year at Hampton Inn will speak at Council Meeting in near future.

Blue Heron Trail bid opening is Thursday, Oct. 14 and information/cost will be presented to Council for action. Phase II of the Stormwater Study by LJB to be presented next month.

Mayor Rick Cross:

- *Blue Heron Trail is part of Comprehensive Plan and a feasibility study is underway.*
- *Johnny Lambert with Davie County Public Utilities to speak at November meeting.*
- *Pat Ivey with NC DOT to present after first of 2022.*
- *Upcoming – Bermuda Run Garden Club Shredding Event Saturday, 10/16; Bermuda Run Country Club's 50th Anniversary Celebration 10/16; Elections – Early Voting/Election Day; Fall into Art 10/30; Christmas in Bermuda Run 12/5*
- *Thanked all First Responders*
- *Thanked Town Staff, and everyone in attendance at tonight's meeting.*

Adjourn

With no further business to discuss, Council Member Mike Ernst made a motion to adjourn. Council Member Chris Fowler seconded the motion. The motion was approved by a vote of four (4) in favor and none opposed.

Approved

Respectfully Submitted

Rick Cross, Mayor

Cindy Poe, Town Clerk

Davie County Public Utilities Master Plan Modeling 2021



1. GIS Overview
2. Task 1: Georeferencing Billing Data
 - Link billing records meter locations and model nodes
 - Collect and process billing records and production data
2. Task 2: Hydraulic Grade Line Review
 - Conduct Two Hydraulic Gradient Tests
 - Hydraulic grade line refers to the water profile under pressure
 - Process Data, Simulate Tests, Compare Model to Test and Calibrate
3. Task 3: Water Age Analysis
 - Map existing system for water age and identify problem areas
 - Test improvements in up to five problem areas
4. Task 4: Water CIP Recommendations

1

GIS Mapping Overview – Current Overview



The following slides provide a high-level overview of the data incorporated into the Asset Management Plan GIS and how it was used in the identification of CIP recommendations.

Current Water Age

☒ Growth_Strategy_2018

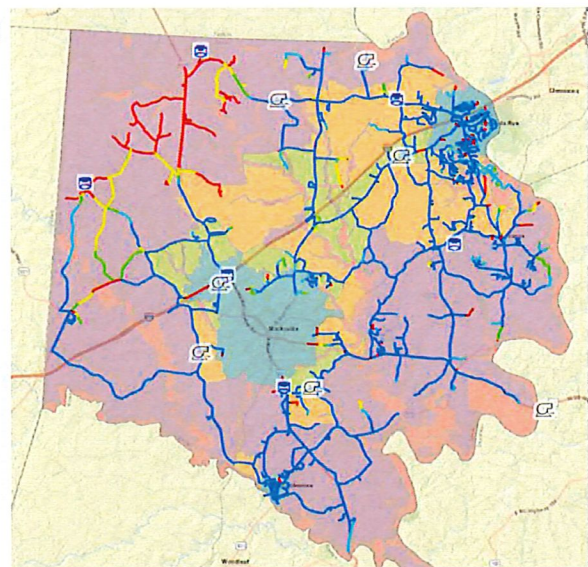
Growth_Typ

- Conservation
- Municipal
- Primary
- Rural
- Secondary

☒ 2021_Water Age

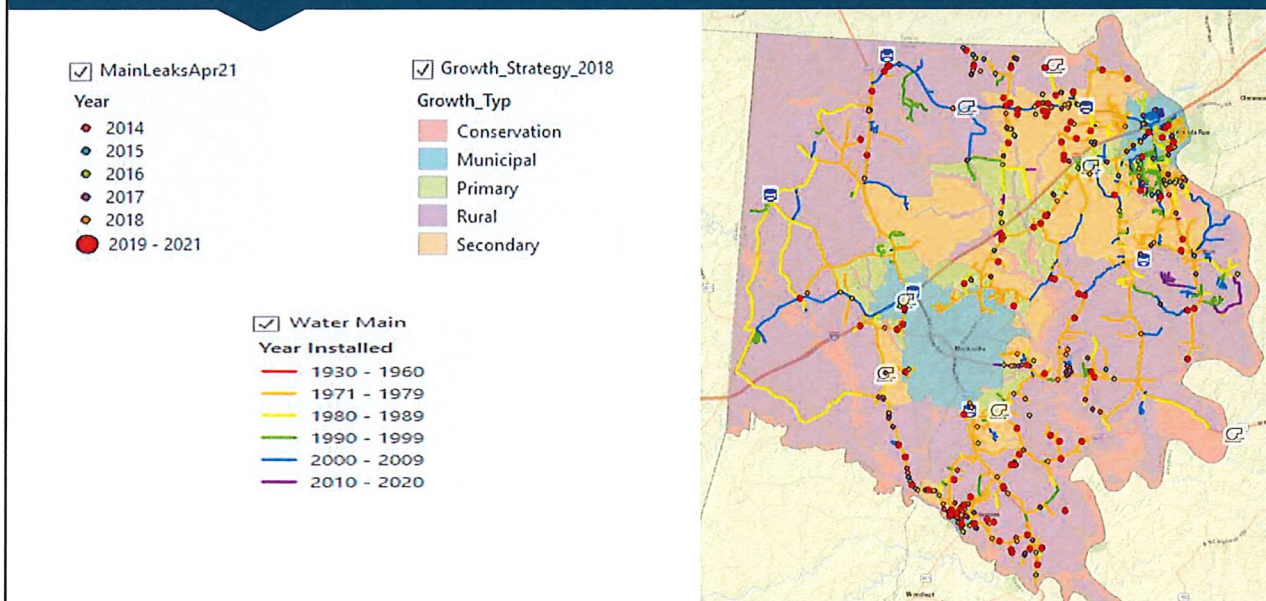
AVE_QUAL

- < = 3 Days
- 3 - 4 Days
- 4 - 5 Days
- 5 - 7 Days
- > = 1 week



2

GIS Mapping Overview Pipe Age and Break History



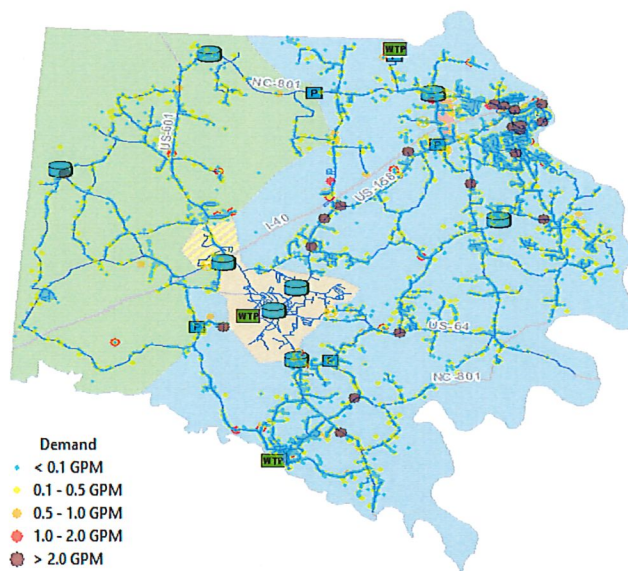
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Geocoding Meters



Meters were geocoded using ArcGIS Pro's Geocode Address tool

When exact street addresses were not available, meters were associated to the street itself



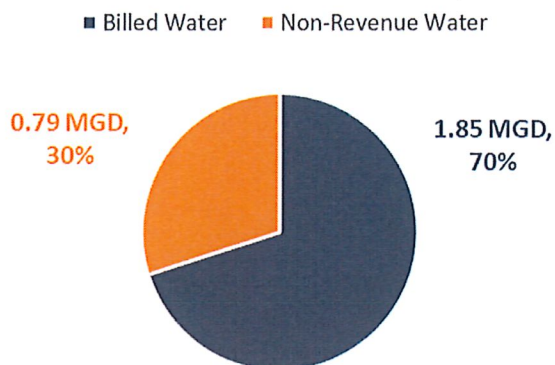
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Billing and Production Data



Billing and Production Data for 2020

2020 Average (MGD)
2.64
1.85 (70%)
0.79 (30%)



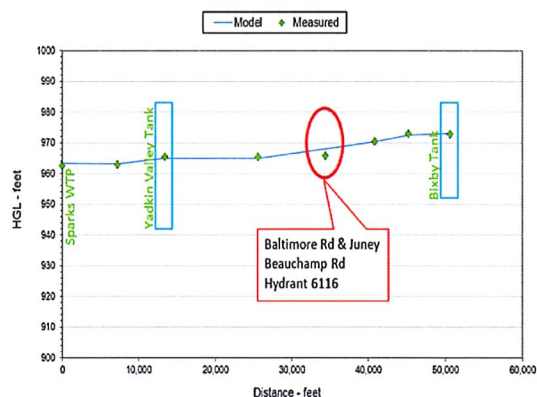
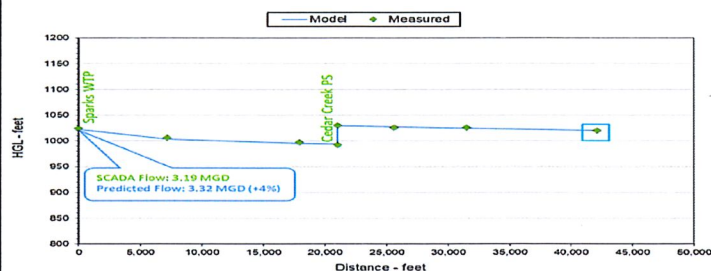
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Hydraulic Grade Lines



Model accurately predicts the HGL test within 2 ft with the updated Pressure Reducing Valve setting

	Location	Distance (feet)	Elevation (feet)	Measured Head (feet)	Measured HGL (ft)	Predicted HGL (ft)
B1	Sparks WTP - Hydrant 2515	0	780	183	963	963
B2	Hydrant #2589, Spillman Rd & NC-801	7,200	827	136	963	963
B3	Yadkin Valley Tank	13,400	856	109	965	965
B4	Hydrant #6237, Juney Beauchamp Rd &	25,600	871	94	965	965
B5	Hydrant #6116, Baltimore Rd & Juney B	34,400	750	216	966	968
B6	Hydrant #4051, Montclair Dr & Baltimore	40,800	795	175	970	970
B7	Hydrant #7557, Princeton Ct & Baltimore	45,200	823	150	973	973
B8	Bixby Tank	50,600	845	128	973	973

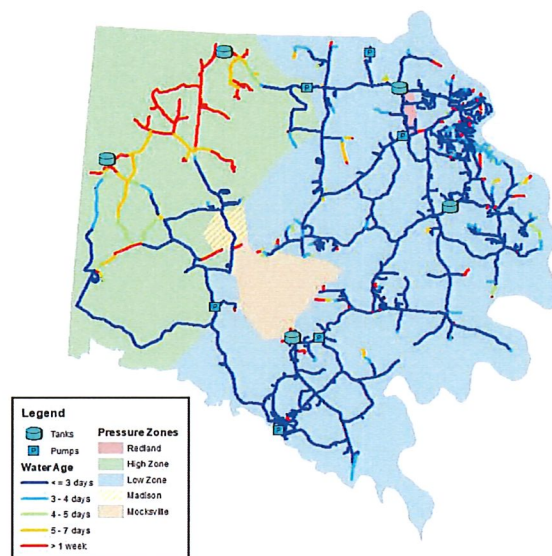


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Water Age Analysis



- Water age is often used as a surrogate for water quality
- Davie County's distribution system uses free chlorine
- Typical water age recommendation for free chlorine systems is 5 days
 - Every system is unique and may find acceptable limits for water quality may vary higher or lower than 5 days
- **New pipes on Main St and Hwy 601 near Cooleemee WTP are included**



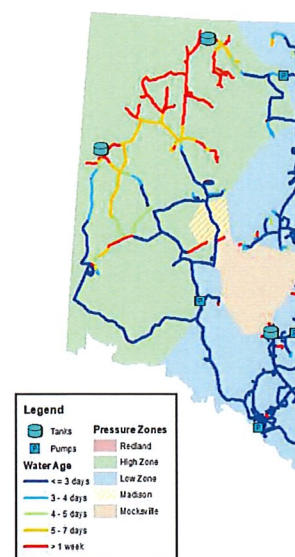
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Water Age High Zone Challenges



Sheffield Standpipe

- Sheffield Standpipe turns over from 50 to 55 ft (1018 to 1023 ft) out of 63.5 ft
- Low turnover range, typical to standpipes, results in higher water age
- **Taking the standpipe out of service greatly impacts local available fire flows and pressures without installing improvements**



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Green Hill Pump Station Option



Retire Sheffield Standpipe

Green Hill PS is limited to 740 GPM due to suction pressure (20 psi)

Installing **6+ miles** of 12-inch improves available fire flow at the Sheffield Standpipe site, but does not meet needed fire flows

Improvements would be required on the suction side (Junction Rd) and discharge side to strengthen connection towards Pallet One Inc.



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CIP Project Goals and Recommendations



Targeted Areas for the Davie County Water Master Plan:

- Water quality concerns
- Frequent breaks
- Infrastructure nearing the end of useful life
- Extensions for targeted development areas identified in the Davie County Comprehensive Plan
- Current CIP has a 10 Year total of \$4.8M for water and sewer extensions

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Main Church Road – Phase 1 & 2



Blue Line – Phase 1

Violet Line – Phase 2



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Main Church Road Phase 1 & 2



10,100	Feet of Trenched Pipe	
8	Inch Diameter	
\$889,900	\$11	/in/ft Construction cost for C900 PVC
\$98,000	11%	Design and Permitting
\$198,000	20%	Contingency
\$1,185,000	Total	

3,900	Feet of Trenched Pipe	
400	Feet of Trenchless Installation Under I-40	
8	Inch Diameter	
\$344,000	\$11	/in/ft Construction cost for C900 PVC
\$600,000	\$1,500	/ft Trenchless Installation
\$104,000	11%	Design and Permitting
\$210,000	20%	Contingency
\$1,258,000	Total	

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Model recommendation Yadkin Valley Road



4,000	Feet of Trenched Pipe	
6	Inch Diameter	
\$264,000	\$11	/in/ft Construction cost for C900 PVC
\$40,000	15%	Design and Permitting
\$61,000	20%	Contingency
\$365,000	Total	

- **Water quality concerns**
- Frequent breaks
- Infrastructure nearing the end of useful life
- Extensions for targeted development areas identified in the Davie County Comprehensive Plan

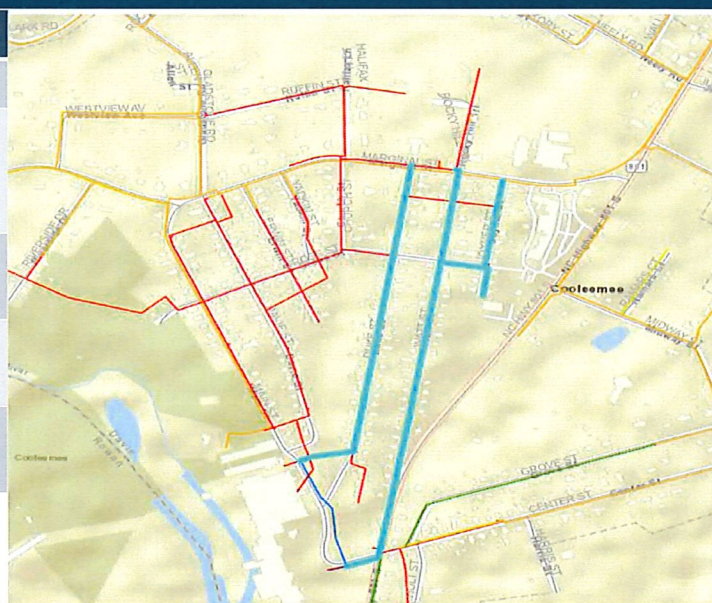


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Coolleemee Phase 1



7,050	Feet of Trenched Pipe	
	6 Inch Diameter	
\$466,000	\$11	/in/ft Construction cost for C900 PVC
\$70,000	15%	Design and Permitting
\$108,000	20%	Contingency
\$644,000	Total	



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CIP Recommendations Summary



Project Name	Length	Diameter	Cost
Main Church Road Phase 1	10,100	8 inch	\$1,185,000
Main Church Road Phase 2	4,300	8 inch	\$1,258,000
Yadkin Valley Road	4,000	6 inch	\$365,000
Cooleemee Water Phase 1	7,050	6 inch	\$644,000
		Total	\$3,452,000

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CIP Recommendations With Current Water Age



Map ID	Project Name
A	Main Church Road Phase 1
B	Main Church Road Phase 2
C	Yadkin Valley Road
D	Cooleemee Water Phase 1

☒ WaterCIP2021

☒ 2021_Water Age

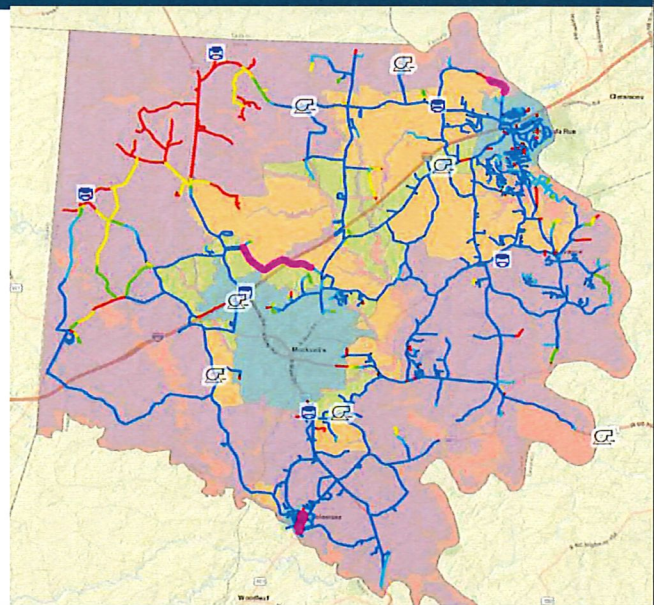
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☒ Growth_Strategy_2018

Growth_Typ

- Conservation
- Municipal
- Primary
- Rural
- Secondary



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Davie County Public Utilities Capital Improvement Plan



Davie County Public Utilities CIP Projects FY 2021 - 2030

#	Uses of Funds	1 2021	2 2022	3 2023	4 2024	5 2025	5-yr Sub-Total
1	Coolleemee Water System Expansion	\$825,000	\$38,800,000				\$39,625,000
2	SCADA Upgrade	\$200,000	\$125,000				\$325,000
3	Carbon System Sparks Rd	\$350,000					\$350,000
4	New Water & Sewer Extension	\$500,000	\$400,000	\$400,000	\$500,000	\$500,000	\$2,300,000
5	Repair and Replacement of PP&V	\$455,000	\$312,000	\$118,000	\$174,000	\$180,000	\$1,239,000
6	Roof repair - Sparks WTP		\$150,000				\$150,000
7	Renovate Deadmon Rd PS			\$200,000			\$200,000
8	Renovate Greenhill PS				\$200,000		\$200,000
9	Replace 2400 If Water Main in Coolleemee					\$200,000	\$200,000
	Grand Total	\$2,330,000	\$39,787,000	\$718,000	\$874,000	\$880,000	\$44,589,000
#	Sources of Funds	2021	2022	2023	2024	2025	5 yr Total
1	State Revolving Fund Loan	\$825,000	\$38,800,000				\$39,625,000
2	Reserves	\$550,000	\$275,000				\$825,000
3	Revenues From Rates	\$955,000	\$712,000	\$718,000	\$874,000	\$880,000	\$4,139,000
	Grand Total	\$2,330,000	\$39,787,000	\$718,000	\$874,000	\$880,000	\$44,589,000
#	Uses of Funds	6 2026	7 2027	8 2028	9 2029	10 2030	10-yr Total
1	Coolleemee Water System Expansion						\$39,625,000
2	SCADA Upgrade						\$325,000
3	Carbon System Sparks Rd						\$350,000
4	New Water & Sewer Extension	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$4,800,000
5	Repair and Replacement of PP&V	\$436,000	\$443,000	\$450,000	\$457,000	\$464,000	\$3,489,000
6	Roof repair - Sparks WTP						\$150,000
7	Renovate Deadmon Rd PS						\$200,000
8	Renovate Greenhill PS						\$200,000
9	Replace 2400 If Water Main in Coolleemee						\$200,000
	Grand Total	\$936,000	\$943,000	\$950,000	\$957,000	\$964,000	\$49,339,000
#	Sources of Funds	2026	2027	2028	2029	2030	10 yr Total
1	State Revolving Fund Loan						\$39,625,000
2	Reserves						\$825,000
3	Revenues From Rates	\$936,000	\$943,000	\$950,000	\$957,000	\$964,000	\$8,889,000
	Grand Total	\$936,000	\$943,000	\$950,000	\$957,000	\$964,000	\$49,339,000

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Current and Approved FY 2021 Rate Assumptions



Davie County has followed this staggered rate increase to avoid any large spikes in utility services for citizens while staying below the state and national annual escalation rate average of 4-6%.

The rate structures recommended by our consultant to the Board last year, as noted on the approved fee schedule, and includes the approved projected escalation rate of 4.75%.



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Current and Approved FY 2021 Rate Assumptions



Davie County currently looks out 5 years for all rate increases. This will fund all capital projects listed in the Davie County Board approved CIP plan.

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Water						
Bi-monthly Base Charge (includes 3 kgal)	\$ 27.80	\$ 29.20	\$ 30.60	\$ 31.30	\$ 32.10	\$ 32.90
> 3,000 gallons	\$ 5.35	\$ 5.60	\$ 5.87	\$ 6.00	\$ 6.13	\$ 6.27
		4.75%	4.75%	2.25%	2.25%	2.25%
Irrigation						
Bi-monthly Base Charge (includes 3 kgal)	\$ 27.80	\$ 29.20	\$ 30.60	\$ 31.30	\$ 32.10	\$ 32.90
> 3,000 gallons	\$ 6.95	\$ 7.28	\$ 7.63	\$ 7.80	\$ 7.99	\$ 8.17
		4.75%	4.8%	2.23%	2.44%	2.25%
All Other Sewer						
Bi-monthly Base Charge (includes 3 kgal)	\$ 25.65	\$ 26.30	\$ 26.90	\$ 27.60	\$ 28.30	\$ 29.00
> 3,000 gallons	\$ 4.25	\$ 4.35	\$ 4.45	\$ 4.55	\$ 4.65	\$ 4.75
		2.28%	2.25%	2.25%	2.25%	2.25%
East Davie Sewer						
Bi-monthly Base Charge (includes 3 kgal)	\$ 35.95	\$ 37.40	\$ 38.90	\$ 40.50	\$ 42.20	\$ 43.90
> 3,000 gallons	\$ 12.35	\$ 12.90	\$ 13.50	\$ 14.10	\$ 14.70	\$ 15.30
		4.44%	4.65%	4.44%	4.26%	4.08%



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Davie County Public Utilities



Questions



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(8.A.)



TO: Town Council
FROM: Lee Rollins, Town Manager
DATE: November 9, 2021
RE: Budget Amendment – Receipt of \$7,000 from DCF

Included for your review:

- Letter from Davie Community Foundation
- Actual and Projected Expenses for “Christmas in the Town of Bermuda Run” event
- August 31, 2021 Agenda Meeting Item Summary Appointing Members to the Bermuda Run Community Vision Fund

Overview:

The Town of Bermuda Run has received a grant from the Davie Community Foundation in the amount of \$7,000.00. These funds were provided from funds within the Bermuda Run Community Vision Fund.

The Bermuda Run Community Vision Fund Committee requested the funds to offset initial costs of planning and implementing the “Christmas in the Town of Bermuda Run” event scheduled for Sunday, December 5, 2021 from 2:00pm – 5:00pm. The 2021-2022 adopted Town Budget did not include this revenue and subsequent expenditures.

Suggested Action:

I recommend the Town Council take action to amend the current 2021-2022 General Fund Budget to receive \$7,000.00 from the Davie Community Foundation as revenue and subsequent \$7,000.00 in expenditures for expenses related to the Christmas in the Town of Bermuda Run event, coordinated by the Bermuda Run Community Vision Fund Committee

October 19, 2021

Mr. Lee Rollins
Town of Bermuda Run
120 Kinderton Blvd Ste 100
Bermuda Run, NC 27006

Dear Lee,

On the advice of the Bermuda Run Community Vision Fund committee, the Davie Community Foundation has awarded the Town of Bermuda Run a \$7,000.00 grant with funds provided by the Bermuda Run Community Vision Fund, a donor advised fund of the Davie Community Foundation. Although your organization has exclusive legal control over its use, please note that the fund advisor's preferred designation is as follows: Christmas in the Town of Bermuda Run

Your organization should not provide a tax receipt for this check since this grant was made from a donor-advised fund.

If you have additional questions, please contact me at (336) 753-6903. Thank you for all of your efforts to make communities better places in which to live.

Best regards,



Melissa O'Connor
Program Officer

Enclosure



[illegible]



TO: Town Council
FROM: Lee Rollins, Town Manager
DATE: August 31, 2021
RE: Appoint Members to the
Bermuda Run Community Vision Fund

Included for your review:

- Donor Directed Fund Agreement Between the Davie Community Foundation and the Town of Bermuda Run
- Davie Community Foundation Policies Governing Donor Advised Funds
- Rules of Procedure for the Town of Bermuda Run Community Vision Fund Committee

Overview:

Prior to the incorporation of the Town of Bermuda Run on July 1, 1999, Bermuda Village resident Kent Matthewson created a non-profit called Hillsdale Tomorrow. The purpose of Hillsdale Tomorrow was to bring resident, civic and business community members together to thoughtfully plan for the future of the US 158 / NC 801 intersection area known as "Hillsdale". Donations were made to this organization to fund designs and plans for proposed growth. Mr. Mathewson utilized the Davie Community Foundation for receipt and expenditure of funds.

In 2012, Davie Community Foundation President, Jane Simpson, shared with the Town that there was \$10,616.97 in the Hillsdale Tomorrow Fund sitting dormant. The Davie Community Foundation Board recommended that a donor directed fund agreement be put in place to transfer the amount in the Hillsdale Tomorrow Fund for a new designated "Bermuda Run Community Vision Fund". The desire of the Davie Community Foundation was for the new Bermuda Run Community Vision Fund to grow and be used for endeavors that fit within the grant-making charitable objectives of the Foundation.

As a result of the recent initiative by Bermuda Run residents, Roseanne Peacock, Sharon Reid and Christy Schaffer to have a community tree lighting at Davie Medical Center, there have been ongoing conversations to more fully implement a Community Vision Fund Committee. It is recommended the Bermuda Run Community Vision Fund Committee be appointed with the following inaugural members: Christy Schaffer (Bermuda Run East), Sharon Reid (Bermuda Run West), Sharon Anderson (Kinderton Village) and Kim Strohacker (Bermuda Run Business Community). A member of the Bermuda Run Town Council is also asked to be appointed to the committee.

The first official community project underway is a Christmas at Bermuda Run event to be held on Sunday, December 5th.

Suggested Action:

- **Appoint-** Christy Schaffer, Sharon Reid, Sharon Anderson and Kim Strohacker as members of the Bermuda Run Community Vision Fund Committee.
- **Appoint-** A Town Council Member to serve on the Committee



Christmas

in the Town of
Bermuda Run

Gazebo Town Square
Kinderton Blvd.

Sunday, Dec. 5th
2:00 - 5:00 pm

Lighting of Christmas Tree
Santa
Games, Crafts,
Music, Carriage Rides
and more...

All are Welcome!

TreeOBR@gmail.com

A collaborative community event.

