

LAKE LURE TOWN COUNCIL WORK SESSION AND ACTION MEETING PACKET

Wednesday, January 24, 2024
8:30 a.m.



**Mayor Carol C. Pritchett
Mayor Pro Tem David DiOrio
Commissioner Patrick Bryant
Commissioner Scott Doster
Commissioner Jim Proctor**

TOWN OF LAKE LURE

Town Council Work Session/Action Meeting

Wednesday, January 24, 2024 - 8:30 AM

Lake Lure Municipal Center



Agenda

- I. Call to Order**
- II. Agenda Adoption**
- III. Public Comment**
- IV. Wastewater Treatment Plant Master Plan Presentation – Page 1**
- V. Arbor Day 2024 Proposal Presentation – Page 43**
- VI. Review Recommended Text Amendment for Code of Ordinances Section 36-70 – Page 48**
- VII. Review Preliminary Draft of Lease for 2654 Memorial Highway – Page 51**
- VIII. Review Volunteer Board Applications – Page 65**
- IX. Project Manager Updates – Page 99**
- X. Town Manager Updates – Page 100**
- XI. Legislative Update with the Policy Group**
- XI= Adjournment**

LAKE LURE TOWN COUNCIL
AGENDA ITEM REQUEST FORM
Meeting Date: January 24, 2024

SUBJECT: Wastewater Treatment Plant Master Plan Presentation

AGENDA INFORMATION:

Item Number: IV
Department: Public Services
Contact: Brian Houston, PE, LaBella Associates
Presenter: Brian Houston, PE, LaBella Associates

BRIEF SUMMARY:

Based on Task 15, LaBella Associates has created a Wastewater Treatment Plant Master Plan that delivers a needs evaluation, preliminary process selection, high-level site selection and assessment, and master plan layout of a proposed long-term Wastewater Treatment Plant Solution. LaBella's Brian Houston, PE, will present the Wastewater Treatment Plant Master Plan.

RECOMMENDED MOTION AND REQUESTED ACTIONS:

N/A

ATTACHMENTS:

Wastewater Treatment Plant Master Plan

STAFF COMMENTS AND RECOMMENDATIONS:

N/A



WASTEWATER TREATMENT PLANT MASTER PLAN

DRAFT

October 10, 2023



CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION	1
Existing WWTP	1
WWTP CAPACITY	3
Service Area	3
Buildout	4
Planning Horizon 2050	7
WWTP PROCESS ALTERNATIVES	10
Alternative 1 – IFAS Process	10
Alternative 2 – SBR Process	11
Alternative 3 – RBC Process	12
Recommendation	13
WWTP SITE SELECTION	15
Site 0 - Existing Site	16
Site Alternative 1	17
Site Alternative 2	18
Site Alternative 3	19
Summary	20
Recommendation	20
CONCLUSIONS & IMPLEMENTATION	21
APPENDICES	

Executive Summary

The Town of Lake Lure's 54-year-old Wastewater Treatment Plant (WWTP) sits on a small parcel entirely within the floodplain of the Broad River. Over the last 30+ years, it has undergone modifications to enable it to accommodate a large amount of Inflow and Infiltration (I&I) received from the now-100-year-old Lake-bottom sewer collection system. As a result of these modifications, the facility is no longer capable of biological wastewater treatment. As the Town develops the replacement sewer system and approaches abandonment of the old one, a WWTP will be required which can adequately treat the anticipated undiluted wastewater via a biological treatment process.

LaBella evaluated capacity needs, treatment process options, and site alternatives in the development of a Master Plan for the future replacement WWTP.

Capacity needs were determined by adding those estimated for existing development to those estimated for future growth through 2050, resulting in a wastewater production of approximately 723,000 gallons per day, substantially greater than the original design capacity of the existing WWTP. Considering regulatory-required excess capacity margins, rounding up to potentially extend the service life of the new WWTP slightly beyond 2050, and targeting a goal of maintaining classification as a Minor Municipal discharger under National Pollutant Discharge Elimination System (NPDES) permitting, LaBella recommends a design capacity for the new facility at 0.995 million gallons per day (MGD). Ultimately when the Town's service area is fully built out, a WWTP capacity of approximately 1.5 MGD may be required.

Three treatment process options were evaluated which could meet the anticipated NPDES effluent discharge limitations while providing the Town particular benefits over the original WWTP's design. LaBella recommends the Integrated Fixed-film Activated Sludge (IFAS) process, which combines the familiar and reliable aspects of traditional activated sludge treatment with the improved process stability and lowered capital and operating cost benefits of attached-growth treatment.

In addition to brief consideration of utilizing the existing WWTP site, LaBella examined three other potential locations for the new WWTP. The parcel between the dam and the existing WWTP, a portion of which the Town is currently negotiating for construction of a new dam, contains an easternmost portion which could accommodate the new WWTP as well as a potential future buildout WWTP. Though it contains difficult terrain, a pump station would not be required to carry new sewer system flows to it, and it provides excellent access to the Broad River discharge location.

Based on the recommended capacity, treatment process and site, LaBella estimates a construction cost of approximately \$28.9 million for the new facility, and a total Project cost of approximately \$33.4 million (both 2023 values, subject to future inflation). Timing of this expenditure should be driven by the timing of the completion of the new sewer collection system, such that LaBella recommends that the development of the WWTP begin three to four years prior to the anticipated switch-over from the existing Lake-bottom system.

Introduction

The Town of Lake Lure owns and operates conveyance and treatment facilities that provide wastewater services for the Town's residents, businesses, and industries. The Town has secured partial funding for a Wastewater Collection and Treatment Improvements Program (the 'Program') that involves the planning, design and construction for the renovation/replacement of the existing 100-year-old Lake-bottom wastewater collection system and improvements/replacement of the existing Wastewater Treatment Plant (WWTP).

The Program consists of multiple phases. The initial phases include rehabilitation of the existing Lake perimeter manholes (completed in 2022) and construction of approximately 9,000 linear feet of new wastewater collection system piping. The manhole rehabilitation project was intended to immediately reduce sewer infiltration to 'buy time' to implement subsequent phases of wastewater collection system construction. The first sections of the new collection system are anticipated to be constructed in 2023-24, with all phases being completed over the following five to ten years, depending on funding availability.

This Report addresses the Program's planning regarding the WWTP, specifically the preparation of a WWTP Master Plan. The timing of the actual WWTP construction work is dependent on completion of the entirety of the new sewer collection system, since redirection of incoming flows from the existing collection system to a new facility would create the same problems that have plagued the existing facility. Yet, until the very last customer is removed from the existing collection system it cannot be abandoned and so related problems will persist. Therefore, while immediate implementation of the full recommendations of this Report is not anticipated, initial steps are identified and a reasonable approach to scheduling full implementation is presented.

Existing WWTP

The Town currently owns and operates a WWTP that was originally constructed as a 0.350 million-gallon-per-day (MGD) activated sludge facility in 1969. In 1991, the WWTP was converted into a physical/chemical (P/C) process and its permit was modified for an annual average daily flow capacity of 0.995 MGD. The reasoning for the conversion was excessive Inflow and Infiltration (I&I) in the influent wastewater stream which dilutes it to the extent that operation of a biological treatment process is not practical. However, even the P/C treatment process is not capable of reliably meeting some of the effluent parameters required by the WWTP's National Pollutant Discharge Elimination System (NPDES) permit (ammonia, in particular), and therefore the facility struggles to maintain regulatory compliance.

The existing WWTP operates under NPDES permit number NC0025381. The most recent issue of this permit listed an expiration date of August 31, 2018, but the North Carolina Department of Environmental Quality (NCDEQ) indicated to LaBella that it is still considered effective.

In early 2022, NCDEQ and the Town entered into a Special Order by Consent (SOC), which suspended certain outstanding and future permit violation penalties and relaxed certain effluent limits in exchange for the Town's deliberate and continuous progress towards correction of the problem (i.e. primarily, elimination of the I&I by replacement of the collection system). This SOC has enabled the Town to focus on the root problem and plan for a more orderly and cost-effective approach to WWTP replacement.

The NPDES permit is a two-tier permit with a flow trigger that makes the higher tier effective thenceforth. The two tiers are for annual average flows up to 0.495 MGD and 0.995 MGD, but WWTP flows exceeded the lower tier years ago and the higher tier is now and will continue to be in effect. Table 1 below indicates notable currently effective discharge limits.

Table 1. Effluent Limits

Effluent Characteristics	By NPDES Permit NC0025381		By SOC	
	Monthly Average	Weekly Average	Monthly Average	Weekly Maximum ¹
Flow	0.995 MGD		(no change)	
CBOD5	30 mg/L ²	45 mg/L	60 mg/L	90 mg/L
Total Suspended Solids	30 mg/L	45 mg/L	200 mg/L	300 mg/L
NH ₃ as N (April 1 – October 31)	5.2 mg/L	15.6 mg/L	(no change)	
NH ₃ as N (November 1 – March 31)	Monitor and Report		(no change)	

Notes: 1. The language of the heading in the SOC differs from that in the NPDES permit but is understood by LaBella to have the same meaning

2. mg/L = milligrams per liter

Little consideration is given herein to a concept of continued use of the existing WWTP for future needs. The facility's entire site is tightly constrained and located within and well below the 100-year flood plain of the Broad River. There is no redundancy in the 54-year-old main treatment structures, and much of the equipment suitable for biological treatment has been removed or abandoned. Therefore, an entirely new facility is envisioned.

However via discussions with NCDEQ regarding future discharge limitations, LaBella determined that the NPDES limits are likely to remain very similar to existing assuming the new WWTP is relatively similar in capacity to the existing and the discharge continues to be directed to the main body of the Broad River near or at the current discharge location (i.e., dilution of the discharge is not significantly changed). The one *possible* change suggested by NCDEQ was a tightening of the ammonia (NH₃) limit, but the Town should not expect phosphorus or nitrogen limits to be imposed, which are more characteristic of discharges to sensitive or low-flow water bodies.

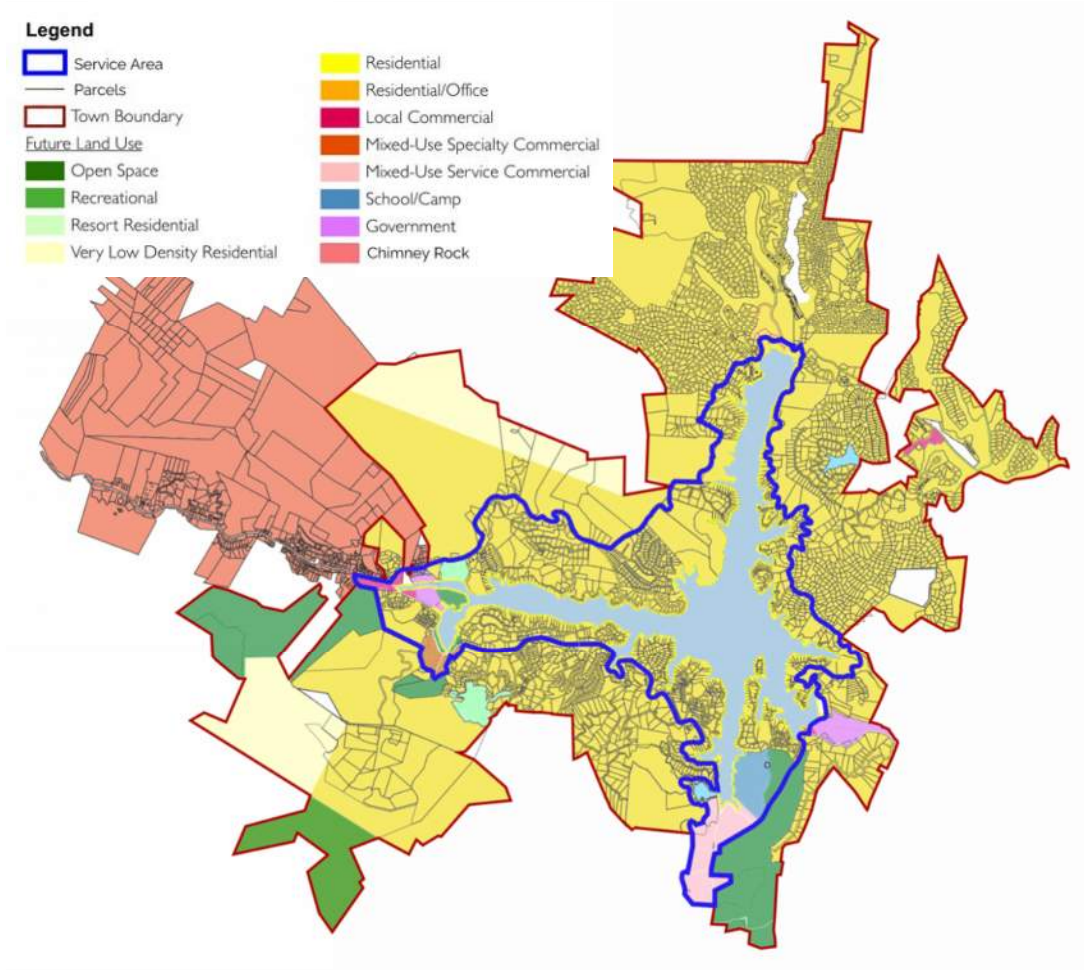
WWTP Capacity

Population growth data and multiple land use plans relevant to the Town's existing and anticipated service area were evaluated to determine the recommended capacity of the future WWTP. Population data was derived from Census.gov¹, and zoning and land use data for parcels within the Town's current and potential service area were obtained from the Rutherford County GIS. Existing land use maps were compared to future planning maps and areas where residential zoning changes have been recorded.

Service Area

For purposes of this Master Plan, the Town's future service area was defined during a November 2022 meeting between LaBella and Town officials as being bounded by US Highway 64 to the south, and Buffalo Shoals and Boys Camp Roads to the north, plus the connected systems of Chimney Rock Village and the development of Rumbling Bald Resort. LaBella also included certain already-developed and immediately adjacent areas, particularly those that are already served by the Town's sewers. Figure 1 below illustrates these boundaries and the planned uses within them.

Figure 1: Town Wastewater Service Area



¹ Data group DP05 – ACS Demographic and Housing Estimates

Within the service area (not including the connected systems), 'tiers' of serviceable residential lots are considered as indicated in Table 2 below:

Table 2. Tier Descriptions

Tier Level	Description
Tier 1	Lakefront properties only
Tier 2	Properties located behind Tier 1
Tier 3	All other parcels within the service area

Tier 2 properties are generally those that are immediately adjacent to (or across a street from) Tier 1 properties. Table 3 identifies the quantities and sewer service of parcels in each tier, and the total number of properties within Tier 1 and Tier 2 is 1,042. This corresponds closely to a GIS-based count of parcels within 200 feet of the Lake shoreline, which the Town has previously indicated includes 1,140 addresses.

Table 3. Current Properties per Tier

	Tier 1	Tier 2	Tier 3	Total
Existing Connected Properties	593	10	57	660
Existing Properties with Septic Systems	-	134	253	387
Undeveloped Properties	133	172	344	649
Total	726	316	654	1,696

One assumption represented in Table 3 is that all existing lakefront residences are already connected to the existing wastewater collection system. Though this is not exactly true (data suggests many are on septic systems, though the Town has occasionally discovered previously unknown connections), it is anticipated that those residences which are directly serviceable by the new system will quickly connect once it is available to them, and all Lakefront lots developed in the future will also connect.

Buildout

Twenty-one properties (plus one additional in the Rumbling Bald Resort community – see discussion on page 6) counted in Table 3 consist of large undeveloped parcels either residentially-zoned or planned for residential uses, and these are assumed to be developable into multiple properties depending on their current zoning and acreage. Appendix A identifies these properties, their current tier, and ultimate developable parcel count. These 21 parcels are estimated to be developable into 454 parcels. Applying this approach to determine the total number of buildout residences results in the counts indicated in Table 4 below.

Table 4. Buildout Properties per Tier

	Tier 1	Tier 2	Tier 3	Total
Existing Connected Properties	593	10	57	660
Existing Properties with Septic Systems	-	134	253	387
Undeveloped Properties	364	260	458	1,082
Total	957	404	768	2,129

This estimated property count was then adjusted downward using a factor estimated by the Town, accounting for those properties which would be unlikely to voluntarily abandon their existing septic systems for public sewer in any foreseeable future. Town officials believe that only about one-quarter of residences within the service

area (which are not already served) will ultimately remain on septic systems. However, this percentage is expected to be lower for those nearer the Lake (i.e., Tier 2). Table 5 indicates the result of this reduction.

Table 5. Buildout Served Properties per Tier

	Tier 1	Tier 2 ¹	Tier 3	Total ²
Existing Connected Properties	593	10	57	660
Existing Properties abandoning Septic Systems	-	121	169	290
Undeveloped Properties	364	234	214	812
Total	957	365	440	1,762

Notes: 1. 90% of Tier 2 from Table 4, not including those already connected

2. 75% of Tier 3 from Table 4, not including those already connected

Data from the 2020 census determined that the average number of persons per household in Lake Lure was 1.9, such that the buildout served residential population can be estimated as follows:

$$\text{buildout served population} = \text{total buildout served residential parcels} \times 1.9 \text{ persons} / \text{household}$$

The resulting population was then multiplied by a per-person wastewater flow factor of 100 gallons per day (gpd), consistent with the Recommended Standards for Wastewater Facilities (the '10 States Standards'), which are referenced by NCDEQ regulations.

$$\text{buildout residential flow} = \text{buildout served population} \times 100 \text{ gpd}$$

The result of this flow calculation approach yields the following total buildout residential flow:

$$1,762 \times 1.9 \times 100 \text{ gpd} \approx 335,000 \text{ gpd}$$

Commercial

There are flows contributing to the Town's sewer system now and in the future which are not residential. While these flows are believed to constitute a relatively small portion of the total today, future development on land available for such uses would permit significant growth. The future land use plan from the 2007 (most recent) Comprehensive Plan identified potential areas of various commercial, institutional and governmental ('CIG') uses, to which estimated wastewater flow factors can be applied to estimate buildout contribution, as tallied in Table 6 below.

Table 6. Buildout 'CIG' Wastewater Flows

Development Type	Acres	Flow Factor	Estimated Flow
Restaurant Commercial	29	3500 gpd/ac	101,500
Other Commercial	117	2000 gpd/ac	234,000
School / Camp	55	600 gpd/ac	33,000
Government	20	2000 gpd/ac	40,000
Total	221		408,500

Vacationers

Lake Lure is an intensely tourist-impacted Town. Summertime population balloons significantly, with one source estimating a nine-fold increase in-season². While this may be on the extreme end of estimates, it points to the fact that the short-term rental market is a significant driver for demands on the Town. With no way of truly knowing the long-term ‘buildout’ scenario implications of this factor, the following approach is taken which is believed to be conservative: One half of the buildout Tier 1 and Tier 2 properties are considered to potentially be available as short-term rentals, with 5 persons per unit rather than the census household population of 1.9. Therefore, the wastewater flow impact of these vacationers can be estimated as follows:

$$\text{vacationer wastewater flow} = \text{half of Tiers 1\&2 parcels} \times (5.0 - 1.9) \times 100 \text{ gpd}$$

$$1/2 \times (957 + 365) \times (5.0 - 1.9) \times 100 \text{ gpd} \approx 205,000 \text{ gpd}$$

Connected Systems

The Town also receives flow from outside users that maintain independent collection systems. Chimney Rock Village is not anticipated to grow substantially, as it is topographically limited to both the north and south of the densely developed US Highway 64 corridor, and therefore its buildout flow is estimated at 120% of current. A recent flow metering effort yielded an estimated average daily flow of 32,000 gpd (see Appendix A), which therefore results in a Village buildout flow estimate of 38,400 gpd.

Rumbling Bald Resort currently has 446 customers connected to a Carolina Water Service (CWS, a private investor-owned utility) collection system which flows to the Town’s system. CWS reports that there are 49 serviceable but unoccupied residential lots in their service area, and LaBella identified one large parcel (see Appendix A) in the development that could be subdivided into an additional 126 lots. In addition, a 67-room (assumed 134-bed) assisted living facility is planned within that service area. There are other nearby large parcels that CWS does not currently identify as being within their service area, but that boundary is ill-defined and additional future development flows could be added.

Rumbling Bald Resort’s monthly flows for 2019 and 2021 are included in Appendix A, yielding a maximum 3-month average flow of just under 96,000 gpd. With the identified remaining growth opportunities, an additional flow of approximately 50,000 gpd could occur, calculated as follows:

$$(49 + 126) \text{ residences} \times 1.9 \text{ persons/residence} \times 100 \text{ gpd} = 33,250 \text{ gpd}$$

$$(67 \text{ rooms}) \times 2 \text{ beds/room} \times 120 \text{ gpd/bed} = 16,080 \text{ gpd}$$

Under the assumption that these possible future developments would reflect buildout of the Rumbling Bald Resort community, the total buildout flow is estimated at 146,000 gpd.

Summary

The sum of the above-estimated flows yields the total anticipated buildout (seasonal) wastewater flow expected to be received at the new WWTP. This is given in Table 7 below:

² <https://www.egovlink.com/lakelure/faq.asp>

Table 7. Total Buildout Estimated Wastewater Flows

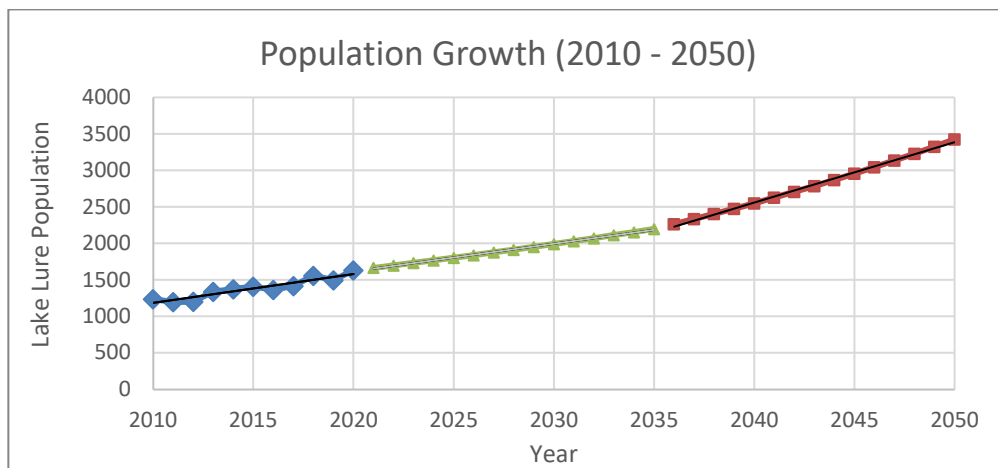
Wastewater Source	Flow (gpd)
Residential	335,000
Commercial	408,500
Vacationers	205,000
Chimney Rock Village	38,400
Rumbling Bald Resort	146,000
Total Estimated Flow	1,132,900

Planning Horizon 2050

Census data between 2010 and 2020 indicated an average annual population growth rate of 2.8% (1,240 to 1,634 in 10 years) in the Town. In 2022, NCDEQ imposed a sewer moratorium on the Town in conjunction with the SOC, which limits the ability of sewer development to occur during the period of construction of the new collection system and WWTP facility. Therefore, a slow growth rate within the Town – somewhat less than that which occurred in the previous decade – is expected. Once the new wastewater collection system and WWTP is completed, the sewer moratorium will be lifted, allowing development as well as new connections from existing structures. It is anticipated that this will result in a short-term surge in new sewer connections, but an overall return to normal growth rates and perhaps somewhat higher. Projected population was therefore estimated using three growth periods:

- 2010 – 2020: data given by Census (2.8% average)
- 2020 – 2035: moratorium-limited growth of 2.0% annual average
- 2036 – 2050: annual growth of 3.0% post-moratorium

The result of this growth projection is a 2050 population of 3,426, which is roughly 2.1 times the Town's 2020 population and an increase of 1,792, as shown on the graph below.



The estimation of service area growth within the planning horizon requires a logical set of assumptions relating to connection status of properties among the three tiers, and development rate of new properties within the service area as compared to that of the Town overall.

Residential

As previously indicated, it is assumed that all developed Tier 1 properties are currently served, or will very soon be connected upon availability of the new collection system. Likewise, a small number of Tier 2 and Tier 3 properties are already known to be served. This yields a total of 660 residential parcels³ which it is estimated would be connected to the new collection system today were it available. This count is therefore considered to represent the current residential sewer demand due to census population.

The estimate of 2,129 buildout properties in Table 4 versus the 1,047 already-developed properties (660+387)³ represents a ratio of 2.03, slightly less than the 2.1 population increase ratio anticipated by 2050. If it were assumed that growth rate within the sewer service area will match that outside the service area, that would suggest that all of the undeveloped buildout parcels in the service area will be developed by 2050. It may even be reasonable to expect that development within the service area will occur at a higher rate than unsewered areas outside of it. For example, once sewer is available to all Tier 1 and Tier 2 properties, it is expected that a substantial development surge among these undeveloped properties will occur, such that they will be relatively rapidly built out. Tier 3 undeveloped properties will account for the remaining development within the service area.

Tier 2 and 3 properties currently served by septic will require significant upland sewer extensions in order to be served, and this could be expected to accompany development of new properties. However, it is estimated that the proportion of existing septic-served properties connecting will occur at a slower rate than new development, and so a '4 new to 1 existing' ratio is used to estimate the portion of these septic-served lots to be connected. This results in the following:

$$1,082 \text{ new development lots} \times (1/4) = 270 \text{ existing septic lots converted}$$

However, as only 290 existing septic-served lots are estimated to be eventually connected (see Table 5), this is nearly equivalent to buildout and so no substantial difference in residential flows from 2050 to buildout is anticipated. The total 2050 residential flow is therefore estimated as equal to buildout, or approximately 335,000 gpd.

Commercial

Existing non-residential demands were previously estimated based on a property-by-property evaluation using NCDEQ-approved flow factors for various use types. The resulting tally is included in Appendix A and totals 30,200 gallons per day. It is fair to assume that these 'CIG' flows will increase proportionately with population growth, and therefore a 2.1 factor is applied to estimate 2050 flow at 63,400 gpd.

Vacationers

As a seasonally tourism-intensive Town, Lake Lure experiences a high influx of vacationers for a large part of the year. Wastewater flow impacts of these visitors is perhaps best indicated by recognizing the extent of vacation rentals available in the Town – a search of Airbnb and VRBO websites yields approximately 300 rentals suitable for 4 or more persons. Many of these are Tier 1 and Tier 2 properties which are often fully booked in season. A flow adjustment can be applied for these by accounting for the difference in population per household (1.9) and likely visitors per unit (estimated at an average of 5), resulting in an additional seasonal residential flow. In addition, it is assumed that this flow will increase with population growth but at a slower rate, so a factor of 1.5 is applied (suggesting that about one half of newly developed parcels are made available for such rentals), resulting in the following residential vacationer flow addition:

³ See Table 3

$$300 \times (5.0 - 1.9) \times 100 \text{ gpd} \times 1.5 \approx 140,000 \text{ gpd}$$

Connected Systems

As discussed on page 6, Chimney Rock Village is not anticipated to grow substantially and therefore would be expected to reach buildout growth by 2050. Rumbling Bald can be reasonably expected to grow at a rate similar to that of the resto of Lake Lure, but has much less than sufficient area to accommodate a 2.1 growth factor and therefore is also likely to reach buildout by 2050. Therefore, 2050 flows for these two areas are estimated at:

$$\text{Chimney Rock Village: } 32,000 \times 120\% = 38,400 \text{ gpd}$$

$$\text{Rumbling Bald Resort: } 96,000 + 50,000 = 146,000 \text{ gpd}$$

Summary

The sum of the above-estimated flows yields the total anticipated 2050 (seasonal) wastewater flow expected to be received at the new WWTP. This is given in Table 9 below:

Table 9. Total 2050 Estimated Wastewater Flows

Wastewater Source	Flow (gpd)
Residential	335,000
Commercial, Institution, Government	63,400
Vacationers	140,000
Chimney Rock Village	38,400
Rumbling Bald Resort	146,000
Total Estimated Flow	722,800

Sizing of the new WWTP must take into account NCDEQ's so-called '80/90 Rule'⁴, which relates to timing for planning of expansion of such facilities. In essence, once a WWTP in a growing locality is approaching annual average flows equal to 80 percent of design capacity, the Town will need to submit a plan for expansion. By the time flows reach 90 percent of design capacity, the Town will need to have completed design and obtained permits for an expansion. Because of this rule, the 2050 WWTP design capacity should be equal to:

$$\text{Total Estimated Flow} / 80\% = 903,500 \text{ gpd}$$

A minimal additional capacity (i.e., 10-15%) in a new WWTP often comes with very little additional capital investment, but can delay the need for future upgrades. NCDEQ permits WWTPs below 1.0 MGD as 'Minor Municipal' facilities, which carries some permitting advantages including potentially less stringent limits, and lesser sampling and staffing requirements. Therefore, in order to extend the service life of the WWTP somewhat further into the future beyond 2050, LaBella recommends the new WWTP be sized for 0.995 MGD, which matches the existing permitted capacity. (Applying this same approach to sizing for the ultimate buildout flows of 1.13 MGD indicated in Table 7 would yield a design capacity of approximately 1.5 MGD.)

⁴ 15A NCAC 02T .0118

WWTP Process Alternatives

The heart of typical wastewater treatment is a biological process in which an aerated environment is maintained to support a biomass of bacteria which consumes the majority of the incoming organic waste. After a settling phase, what remains is a small volume of solids (sludge) and an effluent suitable for environmental discharge which is approximately equal to the incoming flow volume. The biological process is selected primarily in consideration of effluent limitations and is usually preceded by screening (and sometimes also grit removal) to remove untreatable inorganics. Prior to discharge, effluent may pass through a filtration process if discharge limits are particularly stringent, and the last treatment step is typically disinfection.

The Introduction section of this Report outlines the current NPDES effluent limits (see page 2), which are not expected to change significantly in the future per discussions with NCDEQ. The Town's WWTP appears to have originally employed an Extended Aeration Activated Sludge (EAAS) process before it was converted to a P/C facility. 'Activated' refers to the fact that sludge carried to downstream processes is biologically active, and the majority of it is returned to the aeration basin to maintain a target biomass population. Such processes were commonplace at the time of the Town plant's construction and many remain in operation today, meeting effluent limits similar to those contained in the Town's permit. Properly applied, the EAAS process is stable, reliable and relatively simple to operate.

The Town could certainly elect to continue with an EAAS process in a future facility. However, more modern process alternatives offer distinct advantages, particularly with regards to space (i.e., land area required), chemical usage and energy efficiency. LaBella therefore investigated several such processes, which are also characterized by the following:

- Compactness – Limited land area is available in the Town of Lake Lure to locate a new WWTP because of the mountainous terrain.
- Ability to treat variable flows – The initial flows to the proposed WWTP will be small. In addition, Lake Lure is a resort community where influent flows to the WWTP will vary seasonally between summer and winter. The new WWTP needs to be modular to accommodate initial low flows and varying seasonal influent flows.
- Efficiency – The Town is interested in an efficient and economical process design that is relatively simple to operate and maintain.

Alternative 1 – IFAS Process

Whereas conventional activated sludge (including EAAS) treatment involves a biomass entirely suspended in liquid, the Integrated Fixed-film Activated Sludge (IFAS) process adds a physical media (either fixed or free-floating) into the activated sludge tank to facilitate biomass growth on media surfaces. The increased density of biomass – both in liquid suspension and attached to media surfaces – provides several advantages.

The amount of organic waste that is treatable by a biological process is directly related to the amount of biomass available to process it. A higher density of biomass can treat the same loading of waste in a smaller treatment volume. In fully suspended processes, however, a higher density of biomass produces a high loading on the settling phase of treatment (the clarifier), which must then be substantially larger in order to produce a clear effluent. In IFAS where much of the biomass (the media-attached portion) remains in the aeration tanks, the biological process benefits from the higher treatment density without increasing clarifier loading.

An IFAS process is inherently more stable than a fully-suspended process, since the attached portion of the biomass cannot be easily 'flushed' out by hydraulic surges. Biomass attaches to media in layers and is therefore more protected from toxic slugs than liquid-suspended biomass, so it is also more capable of processing varying

organic waste loads. The more stable biofilm lasts longer (with a higher sludge age) and so less waste sludge is produced.

The media types used for IFAS fall into two main categories: dispersed media that floats freely throughout the aeration basin and fixed media that is mounted on racks and submerged. Dispersed media (example at right) consists of thousands of small pieces with a combination of substantial surface area and cell openings large enough to prevent clogging, which promotes free flow of aerated wastewater (food and oxygen) to the attached biomass. Various manufacturers use different shapes and sizes, mostly of various types of plastic.



Headworks International Active Cell Media

Dispersed media offers advantages of exceptional mixing and a high surface area to support a high biomass. In addition, dispersed media is self-cleaning (allowing slough-off of spent biomass) if sufficient coarse bubble aeration is provided to keep it moving and agitated. Dispersed media systems require some type of screening at the effluent end of the aeration tank to prevent loss of media to downstream processes.



Ovivo Cleartec® IFAS Fixed Media Racks

Fixed media IFAS systems typically include racks of high surface area cloth-like material (e.g., open-weave polypropylene) that are strategically located in aeration tanks. While providing the surface area for attached growth biomass, the media can't escape the basin. Because it doesn't require mixing to remain suspended, it can function in basins with low-energy fine-bubble aeration systems. In addition, it can be installed in mechanically-mixed basins without concern for media breakdown. However, occasional scour of the media is required most often via a fixed coarse bubble system located below the racks.

IFAS systems are often applied where biological nutrient removal (i.e., of nitrogen and/or phosphorus) is required since different types of bacteria can be supported in the liquid-suspended biomass and on the physical media. However, the capital cost benefits (smaller tankage) and operational benefits (more stable process, less energy, less chemical addition, less sludge, less volume to aerate) are realized even when complying with more lenient effluent limits as well, such as in the Town's case.

Alternative 2 – SBR Process

A Sequencing Batch Reactor (SBR) process is an activated sludge process configured to carry out each step of the biological treatment process and settling/clarification steps in a single tank. A batch of screened wastewater enters the reactor until a full batch volume is reached, and then flow is diverted to another reactor. Subsequently, the filled reactor is aerated (and sometimes separately or simultaneously mixed, sometimes in multiple steps) for a predetermined period, then settled for a predetermined period, then decanted of effluent, and then finally drained of a waste portion of the activated sludge. Once the full cycle is complete, the reactor is available for another batch.

Continuous influent flows require multiple reactors since one must always be available for filling. The number of reactors



Emptied Alfa Laval AS-H SBR Reactor

ultimately depends on the expected volume of wastewater flow, pre-equalization, and the amount of time allowed for treatment of each batch in the reactor. This provides an inherent benefit where flows are seasonally variable, as individual reactors can remain empty and idle for extended periods of time, and simply be rotated back into service when flows increase.

Since all functions occur in a single tank, there is a substantial amount of equipment in each one and basins are relatively deep (18 to 20 feet). Aeration diffusers can be fixed to the floor or on removeable racks for ease of maintenance. Mixing can be accomplished with submerged or floating mixers, and decanters must be floating in order to withdraw clarified effluent from the top 6 to 12 inches of the declining settled wastewater surface during the decant stage. Since clarification occurs in the reactor, separate clarifiers are not needed, but downstream processes including disinfection and filtration may need to be oversized to accommodate high decant rates unless post-equalization is provided.

In addition to the smaller footprint owing to the absence of clarifiers, the main advantage of SBRs is that they can be designed and programmed to accommodate a wide variety of effluent requirements. Longer or shorter cycle times, and different process combinations and orders of operations are driven by a computer program that can be modified to match changes in wastewater strength and/or effluent limits. This comes with a corresponding disadvantage, however, in that the high level of automation requires sophisticated controls understanding and a substantial amount of automated equipment and valves, all of which are subject to maintenance and possible failure.

Alternative 3 – RBC Process

Rotating Biological Contactors (RBCs) employ a fixed-film biomass population on rotating stacks of disks mounted on a horizontal shaft. The slow rotation (1 to 2 rotations per minute) and partial submergence of the disks alternately submerges the biomass in the wastewater where it contacts the organic waste and raises it above the liquid level where it is exposed to oxygen in the air. As with other fixed-film processes, RBCs are dense with biomass and therefore more stable in the presence of variable organic loadings. The rotational speed controls the amount of biomass retained, by creating a higher shearing action at higher speeds. Wasted biomass is collected in a downstream clarifier and removed from the process. Recirculation of sludge or wastewater is not usually involved, so it is a single-pass process.



Evoqua Water Technologies Envirex® RBC Units

RBCs typically do not employ diffused air for biological treatment and the slow-rotating discs have a very low energy consumption. The units themselves are very quiet due to the minimal rotating energy and the absence of aeration blowers. The stable sludge has a long sludge age and so the process yields a low volume of waste relative to conventional activated sludge processes. Since all of the active biomass resides on the contactors (rather than in liquid suspension) resulting in an increased biomass density, and the process is single-pass without flow recirculation, clarifiers following RBCs are relatively small.

RBCs typically do not employ diffused air for biological treatment and the slow-rotating discs have a very low energy consumption. The units themselves are very quiet due to the minimal rotating energy and the absence of aeration blowers. The stable sludge has a long sludge age and so the process yields a low volume of waste relative to conventional activated sludge processes. Since all of the active biomass resides on the contactors (rather than in liquid suspension) resulting in an increased biomass density, and the process is single-pass without flow recirculation, clarifiers following RBCs are relatively small.

RBC biomass can be adversely impacted when exposed to sunlight and weather, and RBCs are particularly susceptible to performance impacts at low temperatures (below 50°F). Therefore, they are typically covered, particularly in colder climates. However, covers must be configured with adequate ventilation since the biomass relies on oxygen available in the air above the wastewater. Whether open-air or covered and ventilated, the atmosphere-exposed biomass increases the likelihood of odors.

The trade-off between aeration equipment in IFAS and SBR systems and low-speed low-energy motors in RBCs comes with higher maintenance and breakdown risk. Rotating parts are bulky, heavy, and require regular lubrication and maintenance, and discs must be occasionally spray-washed to minimize clogging and prevent overloading or shaft imbalance. A failed motor will quickly starve the attached media of either oxygen (submerged portion) or food, nutrients, and wetting liquid (exposed portion), so having uninstalled spares on hand is essential to consistently meet permit limits.

Recommendation

Table 10 on the following page provides a comparison of the three processes evaluated, against each other and to a conventional activated sludge process. LaBella recommends the Town plan for an IFAS process in the new WWTP, as it provides a combination of the reliable, familiar and easy-to-operate activated sludge process along with advantages owing to the innovation of fixed-film media addition. The particulars of the process can be determined at design time, including whether fixed or dispersed media should be used.

**Table 10. Comparison of WWTP Processes
(versus conventional Activated Sludge)**

IFAS (Integrated Fixed-film Activated Sludge)	SBR (Sequencing Batch Reactor)	RBC (Rotating Biological Contactor)
Process Advantages		
High biomass density resulting in smaller reactor	(n/a)	High biomass density resulting in smaller reactor
Higher sludge age results in less sludge produced	(n/a)	Higher sludge age results in less sludge produced
Stable attached biomass can handle variable waste loads	Process can be reconfigured to address varying wastes and hydraulic loads	Stable attached biomass can handle variable waste loads
Media-attached biomass results in smaller clarifier	No separate clarifier	Smallest clarifier since all active biomass is attached to contactor and process is single-pass
Less aeration volume resulting in lower energy	(n/a)	No mechanical aeration or sludge recirculation equipment (lowest energy)
Can meet more stringent future effluent limits	Can meet more stringent future effluent limits	(n/a)
(n/a)	(n/a)	Very quiet operation due to minimal motors
Lowest capital cost due to smaller basins	Lower capital cost due to fewer basins	Lowered capital cost due to basin sizes, but offset by high capital cost of equipment
Process Disadvantages		
Fixed media replacement every 15-20 years	Difficult in-basin equipment maintenance	Attentive maintenance of contactors required to ensure longevity
Maintenance typical of activated sludge WWTPs	Complex controls resulting in substantial amount of automated equipment subject to failure	Potential structural overloading of contactor and/or shaft imbalance leading to damage
Odor concerns typical of aerated WWTPs	Odor concerns typical of aerated WWTPs	Highest potential for odor
(n/a)	Equalization or oversized processes required downstream of reactors	(n/a)
Operation complexity typical of activated sludge WWTPs	Highly dependent on computer automation	Simple to operate, but temperature-sensitive

WWTP Site Selection

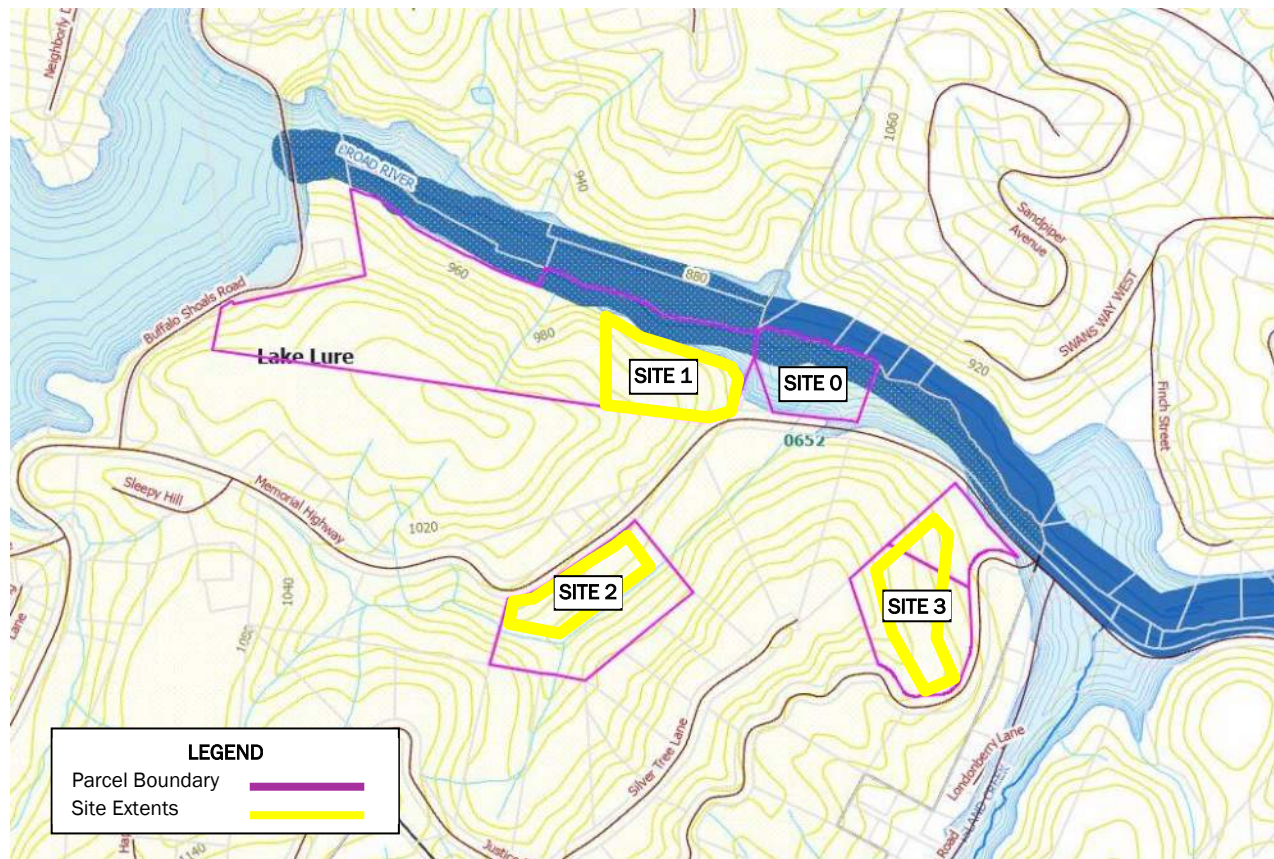
Based on the land area requirements for the WWTP for 2050 projected flows (and potentially also for flows projected at buildout), LaBella evaluated several site options. Each option was evaluated based on the criteria listed below. Ultimately, certain of these issues are captured in a comparison of site-specific costs, and so such a comparison is also provided.

- Elevation relative to floodplain
- Site development difficulty
- Sufficient buildable area for new WWTP
- Sufficient area for future expansion
- Reachable by gravity sewer (no pump station)
- Accessibility for construction and operation
- Availability of land for purchase

The sites included the following, which are illustrated in Figure 2:

- Site 'O' – i.e., the existing WWTP Site
- Site 1 – a portion of Parcel 226751, which abuts the dam, the existing WWTP, and the Broad River
- Site 2 – Parcel 1618826, which lies south of Memorial highway southwest of the existing WWTP
- Site 3 – A combination of Parcels 217875 and 229609, which lie southeast of the existing WWTP along Memorial Highway.

Figure 2: Site Alternatives



Site 0 - Existing Site

The existing site is small, lacking much unused area and located entirely within the 100-year floodplain of the Broad River, but it does represent the most level and buildable site among the four options investigated. To resolve the floodplain issue, the site would need to be raised as much as 8 feet. While technically possible, it presents substantial obstacles and drawbacks. A temporary plant would be needed while the demolition of the existing and construction of the new plant takes place. Most significant, however, is that filling in the flood plain is very difficult to justify from a permitting standpoint. According to the Flood Insurance Rate Map (FIRM) for this site (provided in Appendix B), a floodway has not been established. The Floodway Ordinance has specific rules for development in a floodplain with no established floodway. Article 5, Section E (2) states:

“Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community.”

Based on the extent of fill that would be required in the floodplain to build the WWTP, it is unlikely this standard can be met. A detailed flood study would be required to determine this, which would attract substantial scrutiny from regulatory agencies. LaBella considers it unlikely to be permissible, particularly when other viable options exist.

Figure 3: Site ‘0’ – Existing Site



Site Alternative 1

Site 1 sits on Parcel 226751 between the dam and the exiting plant at grades substantially above the floodplain, but has the added challenge of steep terrain (30% to 50% and higher). According to the USDA Web Soil Survey (WSS) website⁵, it most likely contains substantial bedrock, adding an additional effort to excavation and construction activities. A soil report was generated from WSS and excerpts are included in Appendix C.

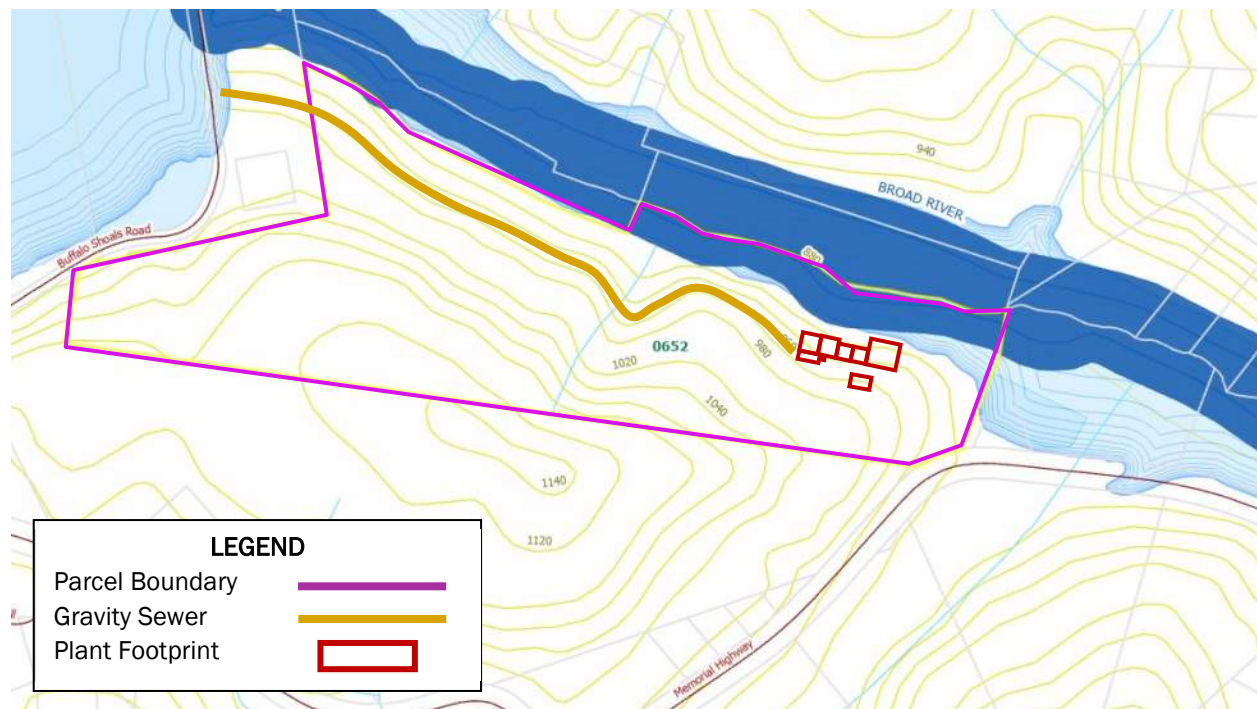
On the northern portion of the site, grades fall towards the Broad River, and this lower portion is where the WWTP process basins would be located in order to avoid the need for an influent pump station. Depending on the portion of the parcel acquired, area for future expansion could be reserved. Structures which are not a part of the main process train (office, equipment building(s), sludge processing), could be located on higher portions of the site. Approximately 1,200 linear feet of gravity sewer would be required from the end of the collection system at the existing dam to reach the WWTP site. Gravity effluent discharge to the river would be immediately adjacent to the site.

Public right-of-way access from Memorial Highway is possible but grades rise significantly on the site from this access point. It may be possible to construct a rear site exit onto the dam access road, but this may require a substantial retaining wall, and design would need to consider future expansion.

The Town is already in discussions with the Owner of the parcel containing this site, as the new dam construction will also impact it considerably. Given the progress of those discussions thus far, it is believed that this site could be acquired without substantial difficulty.

A conceptual plant layout is illustrated in Figure 4 below.

Figure 4: Site Alternative 1



⁵ <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Site Alternative 2

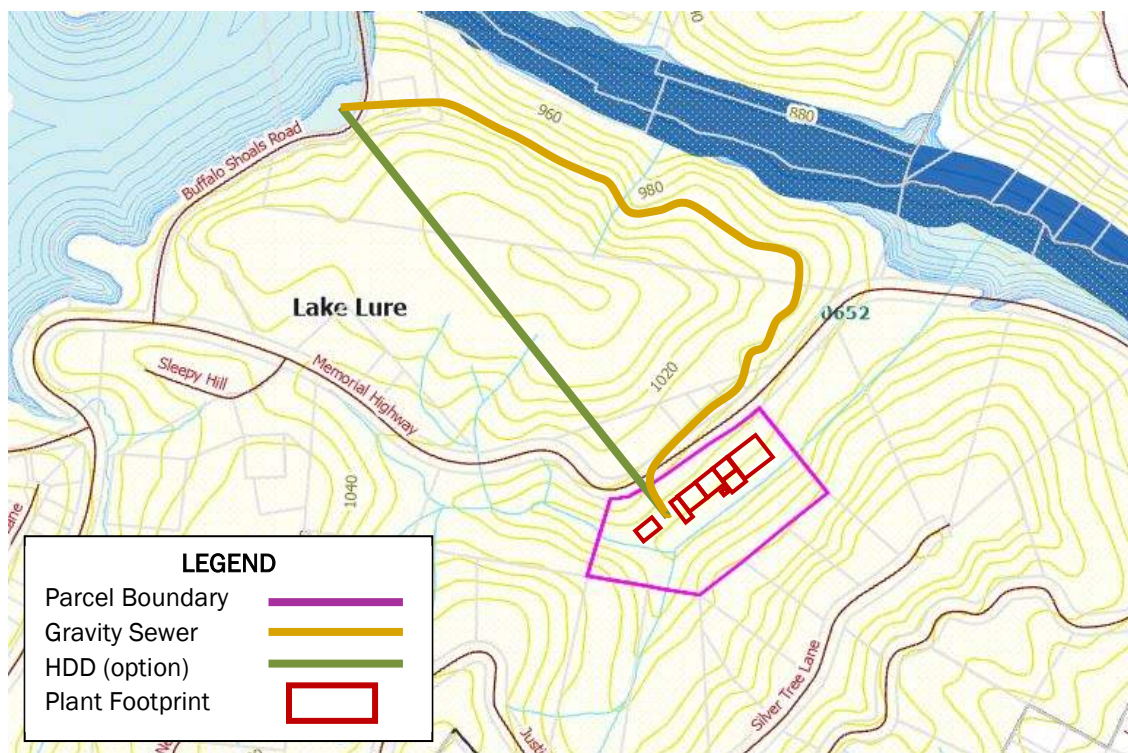
Site 2 utilizes Parcel 1618826, which is considerably less rugged than Site 1, with mild to semi-steep slopes (25% to 40%). The site lies above the floodplain, but a stream bisects the parcel, and it is unclear whether this stream is ephemeral or perennial as LaBella was not permitted to enter the property to evaluate. This is a substantial factor, in that the presence of a perennial stream would require buffers that would further constrain the site. The soil report excerpts contained in Appendix C illustrate that geologic conditions are similar to those of Site 1, with substantial bedrock.

The entire site is relatively low and so it can be reached by gravity without an influent pump station. A conceptual site layout (see Figure 5 below) illustrates that the site could contain all buildings and structures for the anticipated WWTP, but area for future expansion would be minimal or entirely non-existent, particularly if stream buffers are required. Gravity sewer from the collection system was laid out using two different methods: a) a 1,600 linear foot horizontal directional drill (HDD) from the Lake side of the dam and b) a 2,300 linear foot gravity sewer that follows a downslope path around the hilltop southeast of the dam. Either of these approaches would likely carry similar costs, with the latter being more impactful on properties, and the former presenting very unique technical construction challenges. Effluent would be discharged to the Broad River approximately 800 feet away, which would require crossing Memorial Highway.

The site has a considerable frontage on Memorial Highway but the limited available area on the site (particularly with stream buffers) would necessitate that the plant access road be very close to and parallel to the public right-of-way, and a retaining wall would likely be required. Turn-around or drive-thru access would be difficult or unlikely.

The property owner for this site has not been approached formally but has indicated a disinterest in selling as evidenced by LaBella's inability to obtain permission to inspect the stream.

Figure 5: Site Alternative 2



Site Alternative 3

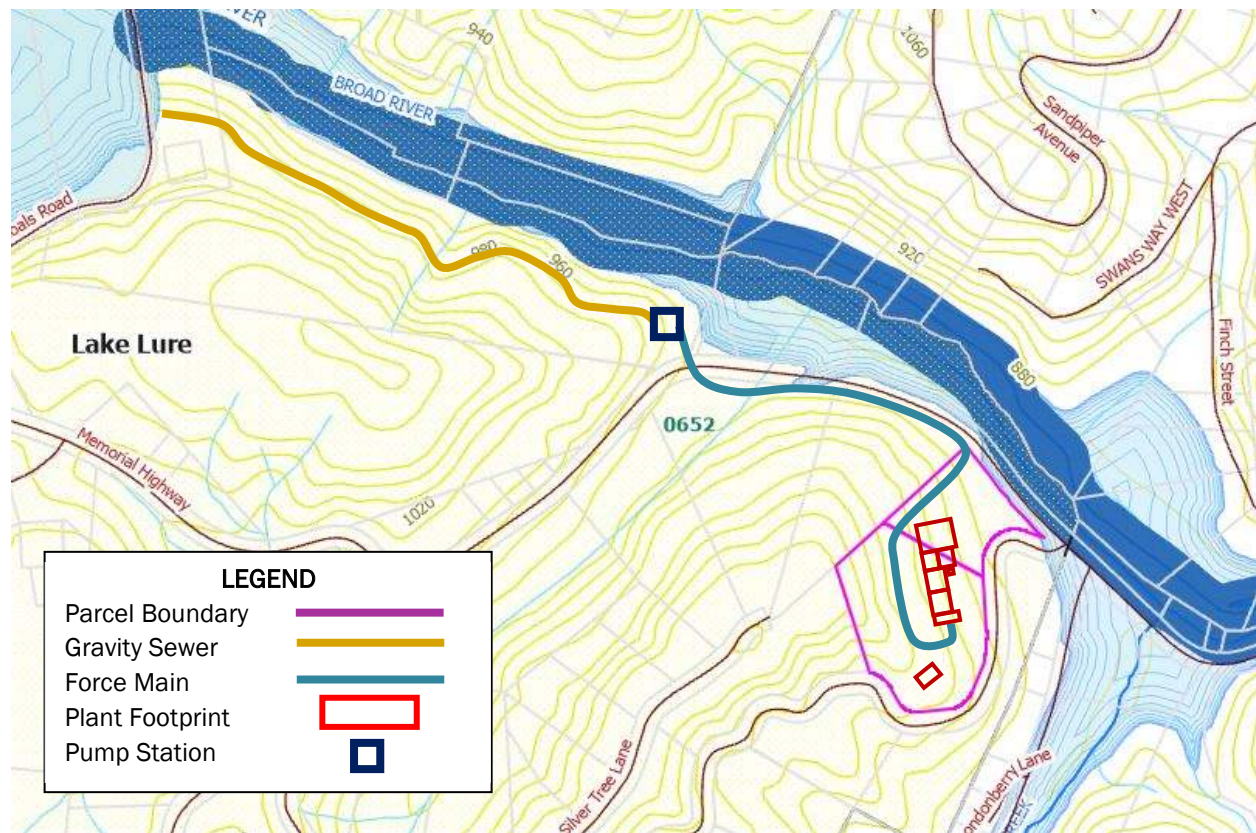
Site 3 consists of two parcels (217875 and 229609) which collectively provide sufficient area on which to construct the anticipated WWTP while also reserving area for future expansion. The site is well above the floodplain, with moderate to extreme slopes (30% to 55%) but without substantial indication of rock, according to the WSS website⁵. A soil report for this site was generated from WSS and excerpts are included in Appendix D.

Any site east of the stream that crosses Site 2 cannot be served by gravity, and so an influent pump station is required. As such, elevations at the site are somewhat inconsequential except for their implications on required pumping energy. A conceptual site layout is shown in Figure 6. The pump station would be expected to be situated near the existing WWTP site, and a force main would extend from there to the site. In all, approximately 1,500 LF of gravity sewer and 1,300 LF of force main would be required. Gravity effluent discharge to the Broad River would be immediately across Memorial Highway from the site.

The site has frontage suitable for multiple entrance points on both Memorial Highway and Justice Drive.

The property owner(s) for this site have not been approached, so availability for purchase is not known.

Figure 6: Site Alternative 3



Summary

A side-by-side comparison of the three Site Alternatives according to the criteria identified on page 15 is given in Table 11. Except for development difficulty, Site 1 appears to be the most favorable. Except for the need for an influent pump station, Site 3 may also be favorable. Site 2 carries concerns primarily with space limitations and potential acquisition difficulty.

Table 11. Site Criteria Comparison

	Site 1	Site 2	Site 3
Floodplain Impacts	No	No	No
Development difficulty	High	Medium	Low
Area for new WWTP	Yes	Yes	Yes
Area for expansion	Yes	Limited/No	Yes
Gravity-fed	Yes	Yes	No
Accessibility	Fair	Fair	Good
Readily Purchase-able	Yes	No	Unknown

Differential costs associated with the Site Alternatives were evaluated and are presented in Table 12 below. The substantially higher costs of Site 3 are primarily attributable to the need for an influent pump station. In addition to the higher initial capital investment indicated below, the perpetual operation and maintenance costs of pumping to the head of the WWTP further detracts from this alternative. Site 2 remains the most cost-effective, but this is likely at the expense of foregoing expandability in the future.

Table 12. Site Development Cost Comparison

Item	Site 1	Site 2	Site 3
Influent Sewer	\$600,000	\$1,150,000	\$2,640,000
Effluent Sewer	\$66,000	\$485,000	\$225,000
Excavation	\$1,250,000	\$1,250,000	\$500,000
Ruggedness Premium	\$2,000,000	\$1,000,000	\$1,000,000
Site Development (drainage, pavement, etc)	\$1,300,000	\$1,000,000	\$1,300,000
Demolition of Existing WWTP	\$500,000	\$500,000	\$500,000
Site Subtotal	\$5,716,000	\$5,385,000	\$6,165,000

Recommendation

The Town's ubiquitously mountainous terrain provides few 'good' options for siting a WWTP. However, Site 1 appears to meet the needs the anticipated and possible buildout WWTP, and at a cost that still makes it attractive as compared to sites that would require influent pumping, and therefore LaBella recommends it.

Conclusions & Implementation

Having identified the capacity, process selection and site for the anticipated new WWTP, LaBella prepared a rough cost estimate which is provided in Table 13 below. A substantial contingency is included since little in the way of design detail can be known at such a conceptual point in the planning process. However, it should be highlighted that the costs are presented in 2023 dollars. Recent inflation has had a dramatic impact on costs for heavy construction and if this persists, the budget would need to be adjusted accordingly for any project development occurring substantially into the future.

Table 13. Recommended WWTP Project Budget

Item Description	Cost
IFAS WWTP Facility (Generic Site)	-
Influent Screen	\$700,000
Aeration Basins	\$2,750,000
Clarifiers	\$1,450,000
Return Pump Station	\$175,000
Disinfection	\$1,560,000
Building	\$400,000
Blowers	\$1,300,000
Aerobic Digester Tank	\$975,000
Plant Piping	\$3,200,000
Electrical	\$3,200,000
WWTP Facility Subtotal	\$15,710,000
Site-Specific Costs (Site 1)	
Influent Sewer	\$600,000
Effluent Sewer	\$66,000
Excavation	\$1,250,000
Ruggedness Premium	\$2,000,000
Site Development (drainage, pavement, etc)	\$1,300,000
Demolition of Existing WWTP	\$500,000
Site Subtotal	\$5,716,000
Construction Costs	\$21,426,000
Contractor's OH&P @ 15%	\$3,210,000
Contingency @ 20%	\$4,290,000
Construction Total (2023 Dollars)	\$28,926,000
Engineering Design @ 10%	\$2,890,000
Construction Engineering @ 5%	\$1,450,000
Property Acquisition	\$100,000
Project Total (2023 Dollars)	Approx. \$33.4M

As stated in the Introduction, the WWTP is not anticipated to be constructed in the immediate future. First, the Town is rightly focused on eliminating the root of their wastewater problem, which is the replacement of the 100-year old collection system located at the bottom of the Lake. Nevertheless, this Report provides insight into what will be needed as that effort is completed, in order to support the Town's growth for years to come.

The question at hand is timing of the development of the new WWTP. Ideally, completion of the new facility would coincide with completion of the new collection system, since at that time the old collection system will be able to be abandoned (assuming all connected customers have been transferred to the new system). Unfortunately, the precise timing of that event is not easily determined, since it is dependent upon the Town obtaining sufficient funding throughout a period of several years.

Since the wastewater flows from the new collection system will be physically separate from that of the old collection system (only being interconnected downstream of the dam), the new WWTP could be developed early, and only the new collection system flows could be directed to it as customers are transferred. However, construction and commissioning of the WWTP substantially ahead of completion of the sewer system replacement is not without its drawbacks. First (as stated in the Introduction), existing sewer system flows would not be directed to the new WWTP, but they must still be treated. Therefore, the Town would have to operate two WWTPs simultaneously. Secondly, the implementation costs of a new WWTP are substantial in and of themselves and it could be argued that these dollars should continue to be focused on solving the core problem first – i.e., the new collection system.

If the new WWTP development is delayed substantially such that the new collection system is completed before the new WWTP becomes available, the old WWTP will need to remain in operation. However, without substantial upgrades to return the existing facility to a functioning biological WWTP (as envisioned in the 2020 ER-EID developed for the Program funding through NCDEQ), it will not be able to handle the new I&I-free wastewater flow, and it is doubtful that purposefully 'diluting' the incoming flow to allow the existing facility to function as-is would be allowed. Therefore, readiness of the new WWTP upon completion of the collection system is essential.

Certain factors are reasonably foreseeable and can be figured into the timing decision, as listed below:

New WWTP Construction	18 to 24 months
Contractor Procurement (including potential funding approvals)	3 to 6 months
<u>Design and permitting</u>	<u>12 to 18 months</u>
Total WWTP Development Time	33 to 48 months

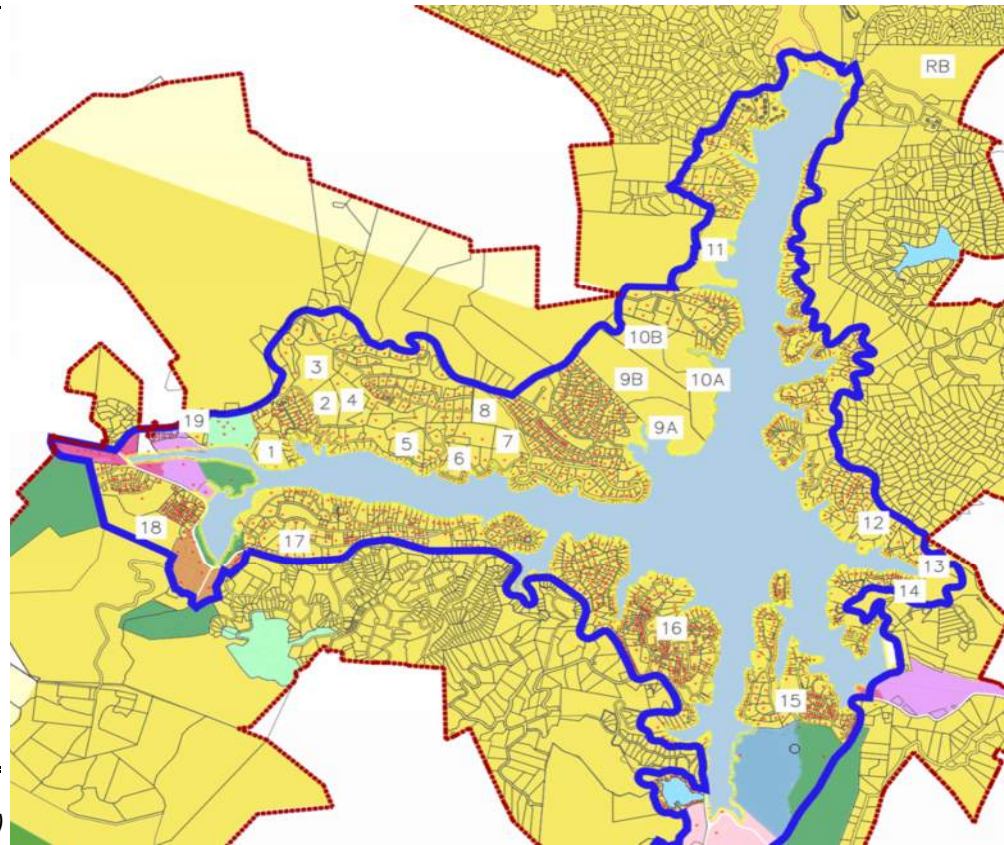
Therefore, it is recommended that the Town anticipate beginning a WWTP development process at a time where approximately four more years of new collection system construction are anticipated. In the meantime, the Town should move to acquire the preferred site, and the development of the new collection system should incorporate consideration of that site to accommodate gravity flow without an influent pump station.

Recognizing that it may be difficult to identify when a point has been reached which is four years out from the completion of the new collection system, the Town may also elect to proceed with design and permitting of the new WWTP at an earlier time. This would reduce the required look-ahead timeframe to 21 to 30 months, which may be more manageable.

APPENDIX A

Contributing Flows

Large Undeveloped Lots						
# (See Map)	Acres	Lot Acres (75%)	Zoning	Min. Lot	Max. Lots	Tier
1	8.9	6.7	R-1A	2.00	3	1
2	9.2	6.9	R-3	0.32	21	3
3	15.1	11.4	R-3	0.32	35	3
4	10.1	7.6	R-4	0.23	33	3
5	7.0	5.3	R-3	0.32	16	2
6	5.6	4.2	R-1	0.23	18	2
7	6.1	4.6	R-1A	2.00	2	2
8	10.7	8.0	R-1A	2.00	4	3
9A	22.4	16.8	R-1D	0.50	34	1
9B	39.2	29.4	R-1A	2.00	15	2
10A	23.8	17.8	R-1D	0.50	36	1
10B	24.7	18.5	R-1A	2.00	9	2
11	24.7	18.5	R-1D	0.50	37	1
12	9.3	7.0	R-1	0.23	30	1
13	4.6	3.5	R-1	0.23	15	1
14	3.7	2.8	R-1	0.23	12	1
15	7.7	5.8	R-1	0.23	25	2
16	5.1	3.8	R-1	0.23	17	3
17	3.1	2.4	R-1	0.23	10	3
18	22.2	16.6	R-1	0.23	72	1
19	4.3	3.2	R-2	0.32	10	2
R.B.	53.9	40.4	R-3	0.32	126	RB
TOTAL	321.6	241.2			580	
(see note)						
8	119.6	89.7			239	Tier 1
7	94.7	71.0			95	Tier 2
6	53.4	40.0			120	Tier 3
1	53.9	40.4			126	R.B.



Note: Tier 1 and 2 parcels subdivided are assumed to be 100% and 90% sewerred (respectively) based on their current tier. See Table 5 discussion.

Chimney Rock Village Flow Metering


Begin Date	2/19/2020
End Date	4/22/2020
Interval of measurement	15 minutes
Number of Measurements	3418 EA
Max Observed Flow (15m interval)	2713 Gal
Peak Observed Flowrate	181 GPM
Average Daily Flow	22.1 GPM
	= 31,885 GPD
Peaking Factor (I&I-driven)	8.2

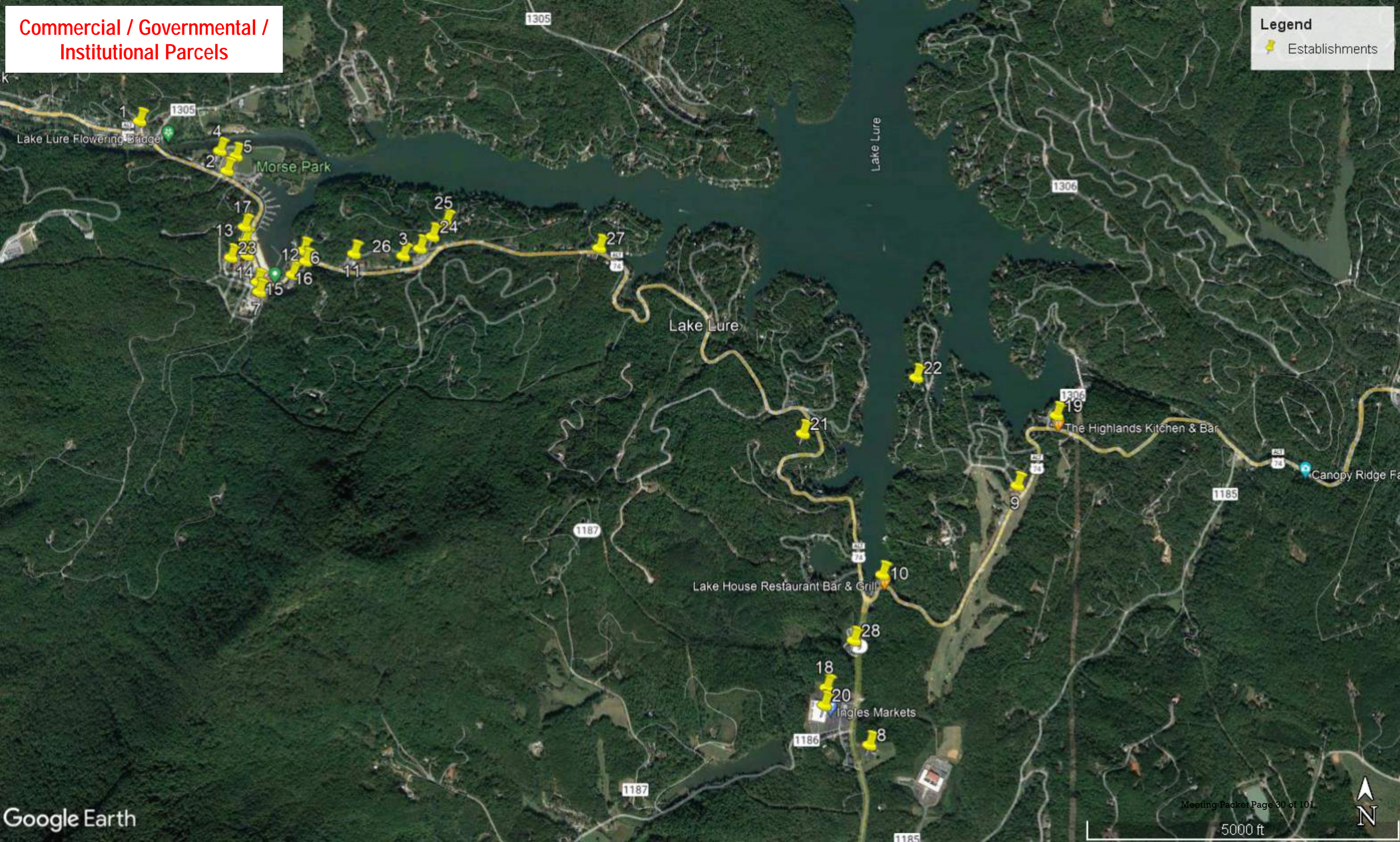
Previous Metering Summary by McGill

Max Observed Flow (15m interval)	2030 Gal
Peak Observed Flowrate	135 GPM
Average Daily Flow	12.2 GPM
	= 17,611 GPD
Peaking Factor (I&I-driven)	11.1

Commercial / Governmental / Institutional Parcels

Legend

 Establishments



Commercial / Governmental / Institutional (i.e., Non-Residential) Wastewater Flows

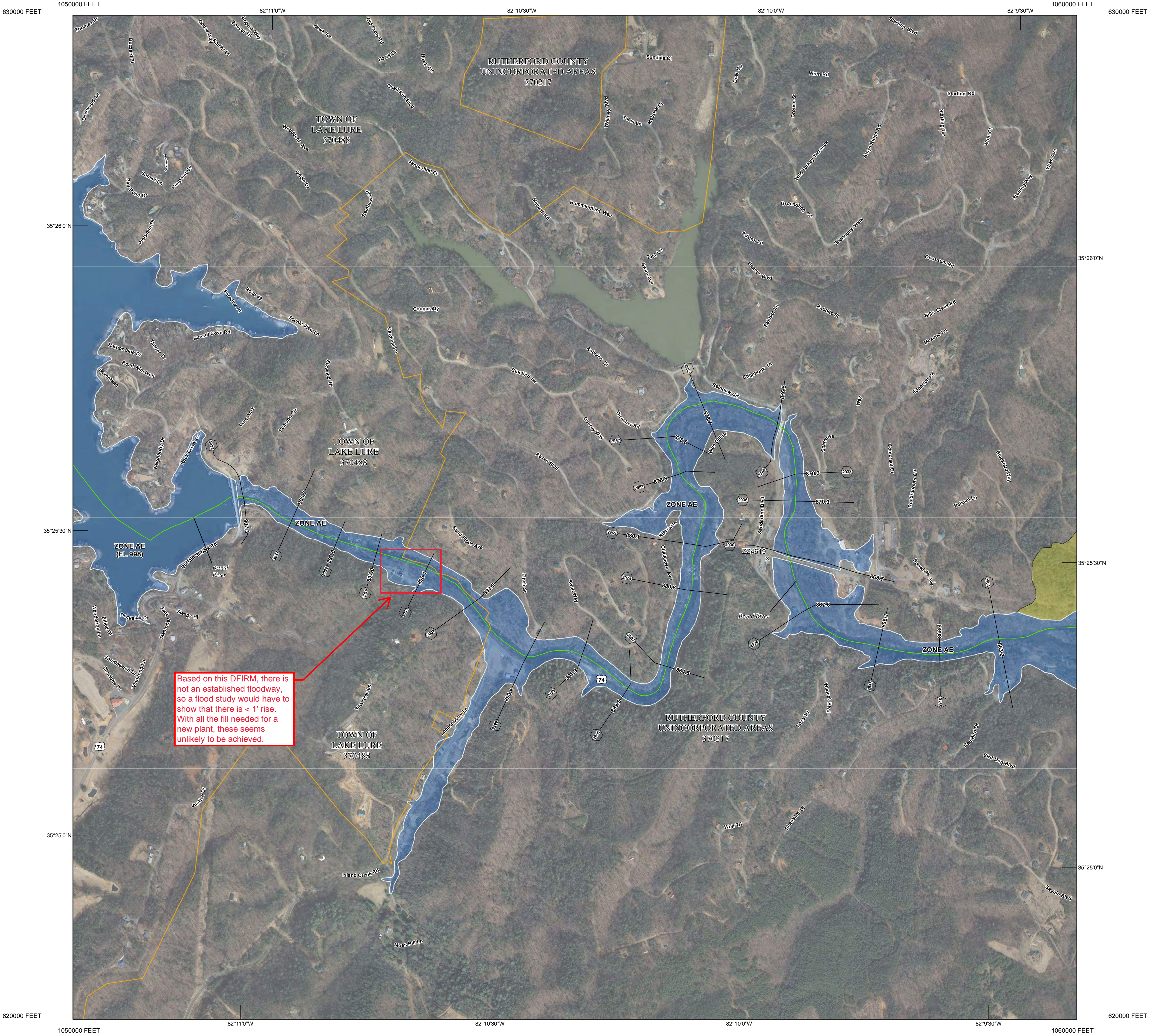
No.	Establishment Name	Unit	Flow Ea	Qty	Flow
1	Hair Therapy Salon	Booth/Bowl	125	4	500
2	Lake Lure Salon	Booth/Bowl	125	4	500
3	US Post Office	Employees	25	20	500
4	Lake Lure Municipal Center	Employees	25	20	500
5	Lake Lure Welcome Center	Employees	25	5	125
6	ABC Store	Employees	25	3	75
7	Joseph R. Hurwitz, Attorney at Law	Employees	25	10	250
8	Crane Creek Baptist Church	Seats	5	150	750
9	Lake Lure Volunteer Fire Department	Persons	25	10	250
10	Lake House Restaurant Bar and Grill	Seats	40	50	2000
11	Lake Lure Food and Beverage	Employees	25	10	250
12	La Strada at Lake Lure	Seats	40	75	3000
13	Japan House Grill and Sushi	Seats	40	30	1200
14	Moose and Goose Lounge	Seats	40	20	800
15	El Lago Mexican Restaurant	Seats	40	50	2000
16	Lured Market and Grill	Seats	40	30	1200
17	Scoop Lake Lure	Floor Area	50	8	400
18	Starbucks	Seats	40	20	800
19	The Highland Kitchen and Bar	Seats	40	30	1200
20	Ingles	Floor Area	125	6	750
21	Gaestehaus Salzburg	Rooms	120	5	600
22	The Lodge on Lake Lure	Rooms	120	5	600
23	The 1927 Lake Lure Inn and Spa	Rooms	120	50	6000
24	Grafton Lodge B&B	Rooms	120	5	600
25	Acorn Cabins Lake Lure	Units	200	2	400
26	Arbor at Lake Lure	Rooms	120	5	600
27	Willowbrook Inn of Lake Lure	Rooms	120	5	600
28	MAHEC Family Health Center at Lake Lure	Practitioners	250	15	3750
				TOTAL	30,200

Rumbling Bald Resort Sewer Flows

Month	Monthly ADF by Year (gpd)		
	2019	2020	2021
Jan	51,610	43,188	36,456
Feb	61,601	50,114	35,291
Mar	58,319	55,062	81,355
Apr	62,815	52,225	53,271
May	65,728	65,404	51,768
Jun	92,507	66,310	60,705
Jul	113,846	82,186	66,118
Aug	77,410	88,260	79,464
Sep	(no data)	78,412	89,651
Oct	73,297	79,393	89,892
Nov	67,256	75,683	45,738
Dec	44,495	65,880	41,964
ADF	69,934	66,920	61,169
Max Mo	113,846	88,260	89,892
Max 3-mo ADF		95,628	

APPENDIX B

Flood Insurance Rate Map for Existing WWTP Site



This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map flood hazard areas at the local level. As a part of this effort, the State of North Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
HTTP://FRIS.NC.GOV/FRIS

SPECIAL FLOOD HAZARD AREAS

Without Base Flood Elevation (BFE)
Zone A, V, AE
With BFE or Depth Zone AE, AO, AH, VE, AR

Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile *Zone X*

Future Conditions 1% Annual Chance Flood Hazard *Zone X*

Area with Reduced Flood Risk due to Levee *See Notes* *Zone X*

Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X*

Channel, Culvert, or Storm Sewer Accredited or Provisionally Accredited Levee, Dike, or Floodwall

Non-accredited Levee, Dike, or Floodwall

National Geodetic Survey bench mark
Contractor Est. NCFMP Survey bench mark

Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)

Coastal Transect

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Limit of Study

Jurisdiction Boundary

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at <http://www.ncfloodmaps.com>, or contact the FEMA Map Service Center.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFMP). The source of this information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Notebook (TSDN).

ACCREDITED LEEVE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

PROVISIONALLY ACCREDITED LEEVE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LMWA). The LMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LMWA (or between the shoreline and the LMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

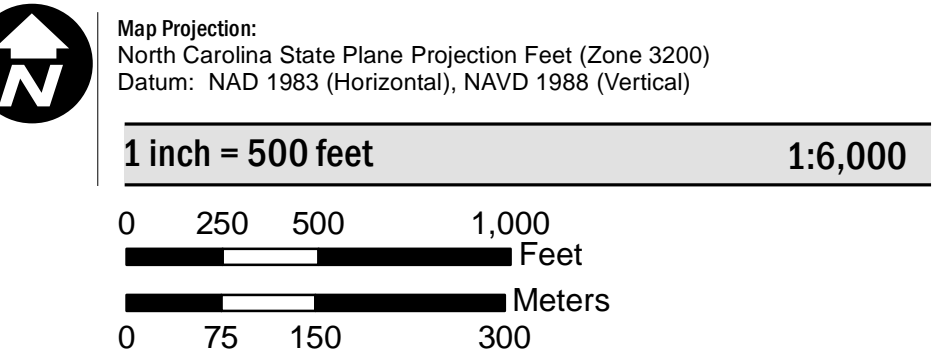
Limit of Moderate Wave Action (LMWA)

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

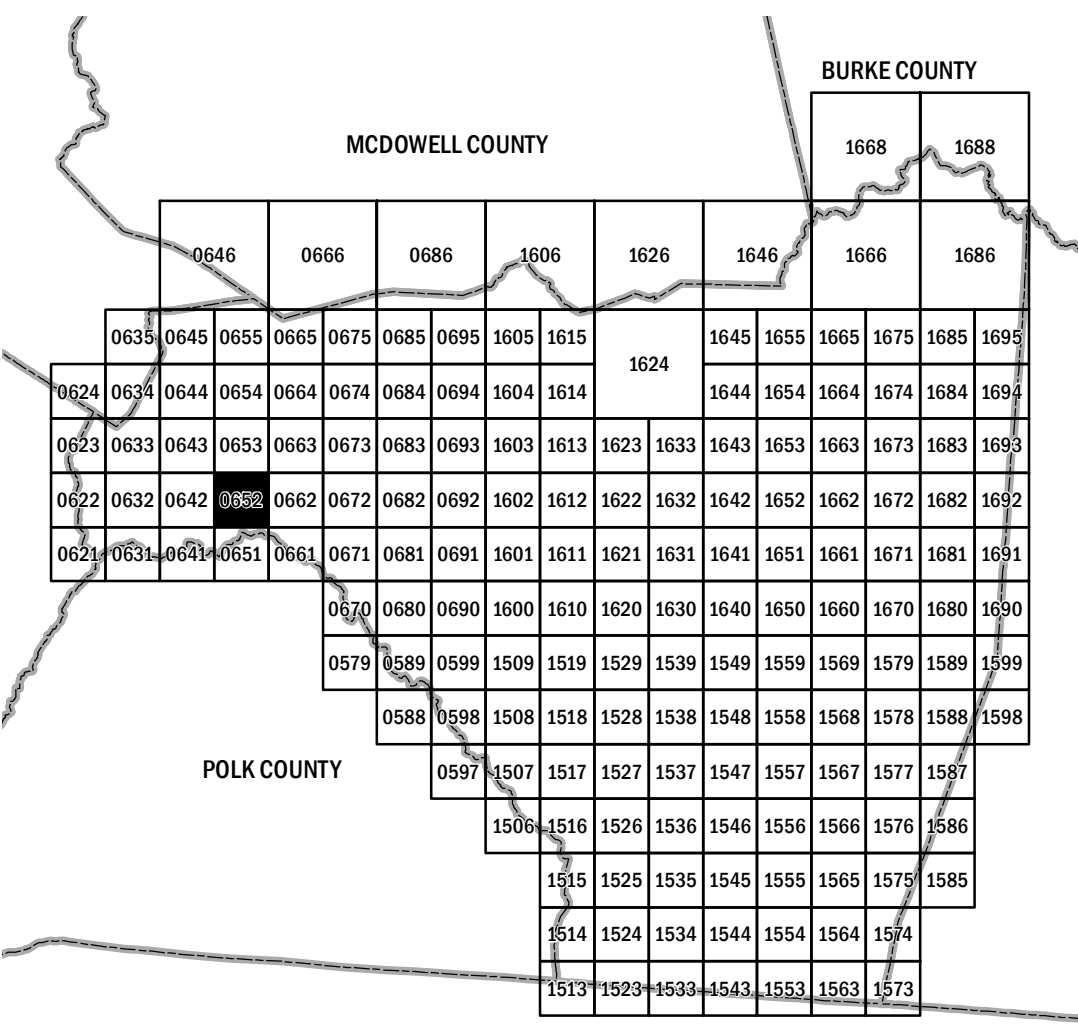
This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see http://www.fws.gov/habitatconservation/coastal_barrier.html, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

CBRS Area **Otherwise Protected Area**

SCALE



PANEL LOCATOR



FEDERAL EMERGENCY MANAGEMENT AGENCY

National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 0652

Panel Contains:

COMMUNITY	CID	PANEL	SUFFIX
LAKE LURE, TOWN OF	370488	0652	J
RUTHERFORD COUNTY	370217	0652	J

MAP NUMBER
3710065200J

MAP REVISED
7/2/2008

APPENDIX C

Soil Report – Hunt & Site 2 Properties



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Rutherford County, North Carolina**

Hunt Proerty Soil Report



Soil Map (Hunt Property Soil Report)

Soil Map may not be valid at this scale.

Map Scale: 1:5,890 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters

0 250 500 1000 1500 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Map Unit Legend (Hunt Property Soil Report)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuB	Buncombe loamy sand, 0 to 5 percent slopes, occasionally flooded	0.3	0.2%
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	0.0	0.0%
DAM	Dam	1.0	0.5%
PaC2	Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	6.4	3.6%
PaD2	Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded	46.1	25.6%
RaE	Rion sandy loam, 25 to 45 percent slopes	50.2	27.9%
RcF	Rion-Ashlar-Rock outcrop complex, 45 to 70 percent slopes	51.1	28.4%
UdC	Udorthents, loamy, 0 to 15 percent slopes	1.5	0.8%
W	Water	23.4	13.0%
Totals for Area of Interest		179.9	100.0%

Map Unit Descriptions (Hunt Property Soil Report)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

APPENDIX D

Soil Report – Site 3 Property



United States
Department of
Agriculture

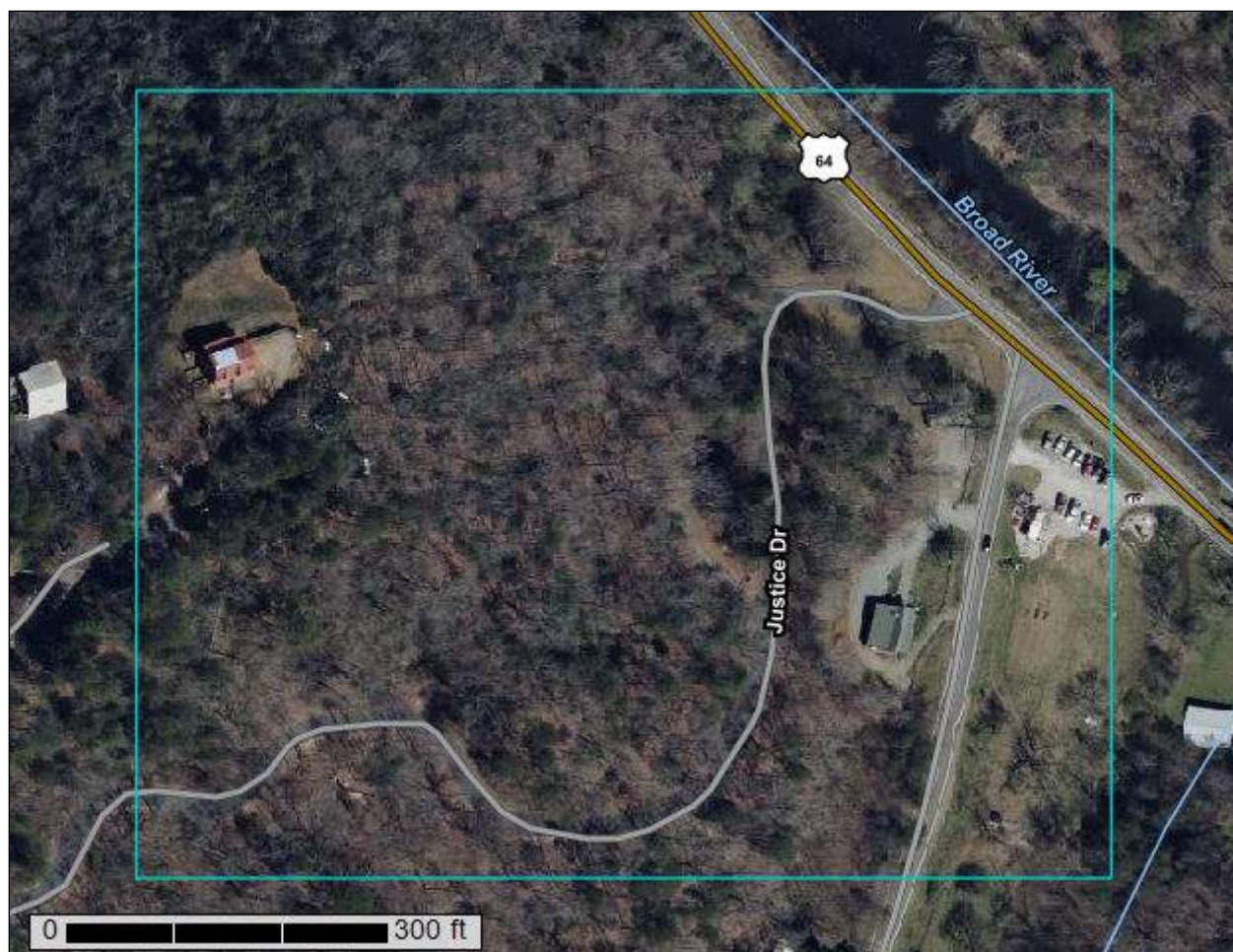
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Rutherford County, North Carolina

Site 3



Custom Soil Resource Report Soil Map



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuB	Buncombe loamy sand, 0 to 5 percent slopes, occasionally flooded	0.4	2.5%
ChA	Chewacla loam, 0 to 2 percent slopes, frequently flooded	2.1	13.8%
PaC2	Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	2.1	13.7%
PaD2	Pacolet sandy clay loam, 15 to 25 percent slopes, moderately eroded	10.2	66.4%
RcF	Rion-Ashlar-Rock outcrop complex, 45 to 70 percent slopes	0.1	0.5%
W	Water	0.5	3.1%
Totals for Area of Interest		15.3	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

LAKE LURE TOWN COUNCIL
AGENDA ITEM REQUEST FORM
Meeting Date: January 24, 2024

SUBJECT: Arbor Day 2024 Proposal Presentation

AGENDA INFORMATION:

Item Number: V
Department: Community Development
Contact: Richard Carpenter, Dev. and Environ. Review Specialist
Presenter: Richard Carpenter, Dev. and Environ. Review Specialist

BRIEF SUMMARY:

Development and Environmental Review Specialist Richard Carpenter has crafted a proposal to the Town regarding Arbor Day 2024. The proposal includes an Arbor Day event that will ultimately result in the planting of 12 deciduous trees within Morse Park on Arbor Day 2024. Mr. Carpenter will present additional information such as an overview of objectives, methodology, and required materials. The overall goal associated with the proposal is to increase tree canopy within Morse Park.

RECOMMENDED MOTION AND REQUESTED ACTIONS:

N/A

ATTACHMENTS:

Arbor Day 2024 Proposal

STAFF COMMENTS AND RECOMMENDATIONS:

N/A

Arbor Day 2024 Proposal

Richard Carpenter, CZO

Community Development Department

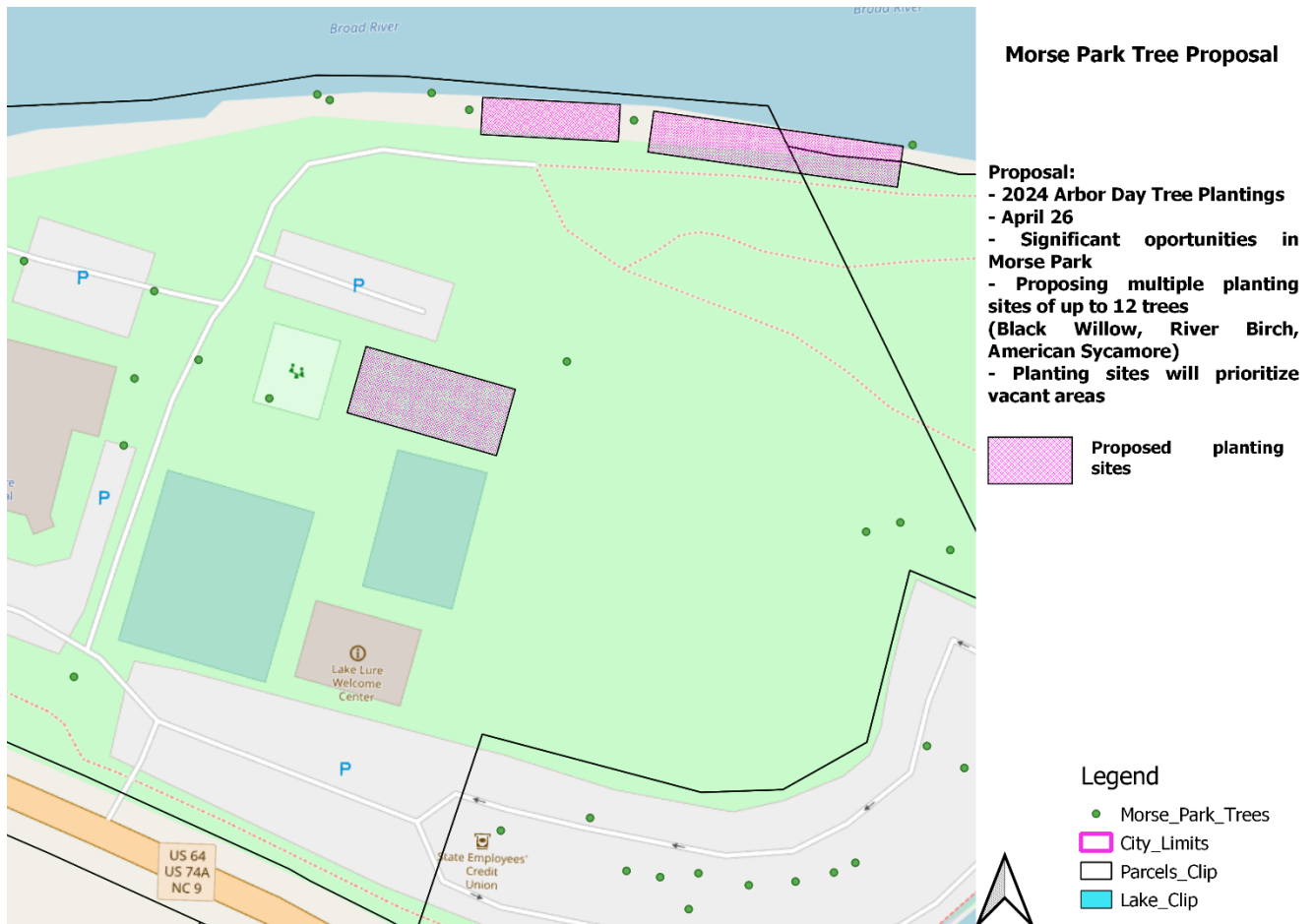
Overview of Objectives:

Arbor Day 2024 – April 26, 2024

- Host an event allowing the public to participate in tree planting within Morse Park.
- Submit an official proclamation in support of Arbor Day and the planting of trees.
- Partner with local stakeholders to promote community education and involvement.
- Increase tree canopy within Morse Park.

Proposal:

- Plant approximately 12 deciduous trees within Morse Park on April 26th for Arbor Day.
 - Locations illustrated on map below.
 - Planting locations prioritize open areas with little to no canopy & the exposed trout buffer.



Methodology:

- Acquire 12 trees from Hillside Nursery – (Total tree cost: \$1,920 for trees)

Species	River Birch	Black Willow	American Sycamore
Quantity	4	4	4
Cost	\$680(\$170/1)	\$620(\$155/1)	\$620(\$155/1)

- Trees will be picked up by LL staff or delivered by Hillside for an additional fee.
- Event would begin with a proclamation by the town for Arbor Day.
- Ideally, the town would provide lite refreshments and spare tools.
- Town staff & qualified volunteers will manage planting sites.
 - I would lead a best practices of tree plantings workshop.

- Upon conclusion, trees would be maintained by town staff. Maintenance would include staking and water using water tanks or gator bags (or an equivalent).

Additional Equipment/Materials Required:

- Lite machinery to lift ball & burlap trees. Average B&B weight is 300-500lbs.
- Hand tools for staff & and any volunteer in need.
- Staking material.
- Slow release watering bags (if to be used instead of tanks).
- Mulch.



OFFICIAL PROCLAMATION

WHEREAS in 1872, the Nebraska Board of Agriculture established a special day to be set aside for the planting of trees, *and*

WHEREAS this holiday, called Arbor Day, was first observed with the planting of more than a million trees in Nebraska, *and*

WHEREAS Arbor Day is now observed throughout the nation and the world, *and*

WHEREAS trees can be a solution to combating climate change by reducing the erosion of our precious topsoil by wind and water, cutting heating and cooling costs, moderating the temperature, cleaning the air, producing life-giving oxygen, and providing habitat for wildlife, *and*

WHEREAS trees are a renewable resource giving us paper, wood for our homes, fuel for our fires, and countless other wood products, *and*

WHEREAS trees in our city increase property values, enhance the economic vitality of business areas, and beautify our community, *and*

WHEREAS trees — wherever they are planted — are a source of joy and spiritual renewal.

NOW, THEREFORE, I, _____, Mayor of the City of _____, do hereby proclaim _____ as **ARBOR DAY**

In the City of _____, and I urge all citizens to celebrate Arbor Day and to support efforts to protect our trees and woodlands, *and*

FURTHER, I urge all citizens to plant trees to gladden the heart and promote the well-being of this and future generations.

DATED THIS _____ day of _____, _____

Mayor _____

LAKE LURE TOWN COUNCIL
AGENDA ITEM REQUEST FORM
Meeting Date: January 24, 2024

SUBJECT: Review Recommended Text Amendment for Code of Ordinances Section 36-70

AGENDA INFORMATION:

Item Number: VI
Department: Community Development
Contact: Michael Williams, Community Development Director
Presenter: Michael Williams, Community Development Director

BRIEF SUMMARY:

Town staff has identified a discrepancy within the Zoning Ordinances in regard to Residential/Office District (R-4) zoning rear yard and side yard setbacks. Section 36-61 ("R-4 Residential/Office District") in the Zoning Ordinances specifies that side yards shall be not less than 12 feet in depth and rear yards shall be not less than 15 feet in depth. However, Section 36-70 ("Building Site Minimum Dimensional Requirements") includes a table which states that the side yard and rear yard setbacks are both 10 feet, which is true for all other residential districts. Town staff feels that there was intent behind the specific setbacks for R-4 within Section 36-61 and recommends amending Section 36-70 to clarify that R-4 side yards shall be not less than 12 feet in depth and rear yards shall be not less than 15 feet in depth.

RECOMMENDED MOTION AND REQUESTED ACTIONS:

N/A

ATTACHMENTS:

Section 36-61; Section 36-70

STAFF COMMENTS AND RECOMMENDATIONS:

Staff recommends amending Section 36-70 to clarify that R-4 side yards shall be not less than 12 feet in depth and rear yards shall be not less than 15 feet in depth. If Council is in agreeance, staff will draft an ordinance amending the section and a public hearing date will need to be set.

Sec. 36-61. R-4 Residential/Office District.

- (a) *Intent.* The R-4 Residential/Office District is established along U.S. 64/74A from the western town limit line to the intersection of N.C. Highway 9 with U.S. Highway 64/74A, excluding those areas currently zoned R-2 and R-3, to provide limited nonresidential uses which will have little impact on the neighboring residential areas. In many cases nonresidential uses may occupy buildings which have been used as residences. If new buildings are constructed, the town recommends that they be of a residential character design.

(f) Front, rear, and side yard requirements.

- (1) For lots which abut the street, the building setback shall be not less than 35 feet from the street right-of-way.
- (2) For lots which abut the lake, the building setback shall be not less than 35 feet from the lake shoreline.
- (3) Side yards shall be not less than 12 feet in depth.
- (4) Rear yards shall be not less than 15 feet in depth.
- (5) When the lot is used for any nonresidential use, a buffer strip shall be provided along the side and/or rear lot line of any abutting residential use. If a fence or wall is used, such fence or wall shall be opaque and not less than eight feet in height. If a planted buffer is used, such buffer strip shall be composed of evergreen trees or shrubs which at planting will be at least four feet high and at maturity will be not less than eight feet high. This requirement may be modified by the board of adjustment where sufficient natural buffering exists.

(Code 1989, § 92.030; Ord. of 12-12-1995; Ord. of 7-10-2001; Ord. of 5-11-2004; Ord. of 11-15-2005; Ord. of 2-13-2009; Ord. of 4-13-2010; Ord. of 12-14-2010; Ord. of 4-10-2012; Ord. of 2-12-2019; Ord. No. 21-05-11, 5-11-2021)

Sec. 36-70. Building site minimum dimensional requirements.

Zoning Classification	Lot Area (a)(g)	Lot Width at Building Site (b)(g)	Setbacks(g)			Rear Yard Open Space Percent of Lot (e)
			Front Yard *	Side Yard	Rear Yard (d)	
R-1	10,000 s.f.	100 ft.	(c)	10 ft.	10 ft.	30%
R-1A	2 acres	100 ft.	(c)	10 ft.	10 ft.	30%
R-1B	1 acre	100 ft.	(c)	10 ft.	10 ft.	30%
R-1D	0.5 acre	100 ft.	(c)	10 ft.	10 ft.	30%
R-1C	0.5 acre	60 ft.	(c)	10 ft.	10 ft.	20%
R-2/R-3						
Single-family	14,000 s.f.	60 ft.	(c)	7 ft.	10 ft.	20%

	Two-family	18,000 s.f.	70 ft.	(c)	8 ft.	10 ft.	20%
	Three-family	24,000 s.f.	85 ft.	(c)	10 ft.	10 ft.	20%
	Four-family	29,000 s.f.	100 ft.	(c)	10 ft.	10 ft.	25%
	R-4 (f)	10,000 s.f.		(c)	10 ft.	10 ft.	
	CN	10,890 s.f.	50 ft.	10 ft. (c)	10 ft.	15 ft.	none
	CTC	10,000 s.f.	50 ft.	0 ft. (c)	0 ft. or 10 ft.	15 ft.	none
	CG	21,780 s.f.	100 ft.	10 ft. (c)	12 ft.	15 ft.	none
	M-1	2 acres	100 ft.	(c)	12 ft.	15 ft.	none
	S-1	25 acres	100	35 (c)	35	35	none

Maximum building height in any district shall be not more than 35 feet as measured from the average finished grade at building foundation line. The average finished grade is determined by adding the elevation of the highest corner of the proposed structure to the elevation of the lowest corner of the proposed structure and divide by two.

*See definition of "setback" for streets with no right-of-way in section 36-5.

(a) Plus 2,000 square feet of lot area for each additional dwelling unit in excess of four.

(b) The lot width at the building site minimum dimensional requirements shall not apply to existing lots of record as of the effective date of the ordinance from which this chapter is derived. For any residential lot, lot width at street line shall be not less than 35 feet. For any commercial lot, lot width at street line shall be not less than 100 feet. Lot width at street line for the R-4 district shall be not less than 50 feet. Any lot abutting Lake Lure shall have a frontage along the lake of not less than 100 feet.

(c) For primary streets, the front yard setback shall be 40 feet from the centerline, but not closer than ten feet from any right-of-way line where such line exists. For secondary streets, the front yard setback shall be 35 feet from the centerline, but not closer than ten feet from any right-of-way line where such line exists. In all commercial districts, setbacks shall be measured from the right-of-way line, or where no right-of-way exists, from a point 15 feet from the centerline of the street. In most situations, the front yard lies between the building and the street. However, for lots which abut a lake, the lake side is also considered a front yard. In any zoning district, minimum setback from the lake is 35 feet measured from the shoreline.

(d) From the rear property line to the nearest building on that lot.

(e) Excluding any space occupied by an accessory building which may be located between principal building and rear lot line.

(f) Maximum building size for office: 3,000 square feet (heated area).

(g) The minimum lot area, lot width and yard requirements may be reduced in an approved conservation design subdivision provided that the zoning and planning board approves such reduction in accordance with section 28-77(3)c. The reduced setbacks shall be clearly stated on the final plat. If the reduced setbacks are not stated on the final plat, the standard setbacks noted in this section shall apply.

(Code 1989, § 92.040; Ord. of 1-25-1994; Ord. of 12-12-1995; Ord. of 11-26-1996; Ord. of 2-9-1999; Ord. of 4-10-2007; Ord. of 8-12-2008; Ord. of 2-8-2011; Ord. of 12-9-2014; Ord. of 3-10-2015)

LAKE LURE TOWN COUNCIL
AGENDA ITEM REQUEST FORM
Meeting Date: January 24, 2024

SUBJECT: Review Preliminary Draft of Lease for 2654 Memorial Highway

AGENDA INFORMATION:

Item Number: VII
Department: Administration
Contact: Hank Perkins, Town Manager
Presenter: Hank Perkins, Town Manager

BRIEF SUMMARY:

During the December regular meeting, Town Council voted to authorize the Town Manager to negotiate lease terms with Mr. Paul Brock and Mr. Wade Oppliger based on their proposal for the lease of 2654 Memorial Highway. Town Manager Hank Perkins and Town Attorney William Morgan have been in the process of creating a preliminary draft to meet the needs of both the Town and the future tenants. Town Council will review the draft.

RECOMMENDED MOTION AND REQUESTED ACTIONS:

N/A

ATTACHMENTS:

Draft Lease Agreement for 2654 Memorial Highway

STAFF COMMENTS AND RECOMMENDATIONS:

N/A

STATE OF NORTH CAROLINA

COUNTY OF RUTHERFORD

LEASE AGREEMENT

THIS LEASE AGREEMENT ("Lease") is made and entered into this ____ day of _____, 2024, by and between TOWN OF LAKE LURE, a North Carolina municipality ("Landlord"), and SECOND MOUNTAIN LLC ("Tenant");

WITNESSETH THAT:

Upon the terms and conditions hereinafter set forth, Landlord hereby leases to Tenant and Tenant hereby leases from Landlord certain real property referred to below as the Premises, all as follows:

1. PREMISES. The real property hereby leased to Tenant consists of that certain real property and improvements located thereon having a street address of 2654 MEMORIAL HWY, Lake Lure, Rutherford County, North Carolina and a PIN # 632878422 of (the "Premises").

2. TERM. The term of this Lease, subject to prior termination as provided herein, shall commence on February ____, 2024 (the "Commencement Date") and end on January ____, 2029 at 5:00 p.m. local time (the "Expiration Date"). The Tenant shall have one additional 5 year option which shall be exercised no later than 180 days prior to the Expiration Date. 3. SECURITY DEPOSIT. Tenant shall deposit with Landlord the sum of \$4000 and No/100 Dollars (\$), which amount will serve as security for the full and faithful performance by Tenant of all the terms, covenants and conditions of this Lease to be performed by Tenant, against which sum Landlord is authorized to charge any damages it may sustain as the result of the failure of Tenant to fully and faithfully perform all of said terms, covenants and conditions. At the termination of this Lease, any unused portion of said sum shall be returned to Tenant, but only after an inspection of the Premises has been made by Landlord after vacation thereof by Tenant and application of the deposit as allowed hereunder and by North Carolina law. Tenant shall not be credited with or entitled to any interest on its security deposit.

3. RENT and CONCESSION AGREEMENT. Beginning on April 1, 2024, and continuing on the first (1st) day of each month thereafter throughout the Term, Tenant shall pay monthly rent to Landlord in the initial amount of \$4000 and No/100 per month for the use of the building and a 15% concession agreement payment based on gross receipts for revenue generated via Tenant's rowing operations and rentals, paid to the town monthly. The 15% of gross receipts from concession revenue will be generated by rowing equipment rental, guide services and large rowing based events. These activities include Juniors Rowing, Rowing craft rentals, Events/Guide Services, and large rowing based events as described in Exhibit 1. (Refer to Section 19.2 for rental payment address.)

The Tenant shall remit the payment of the 15% concessions to the Landlord on the first of the month. Payment shall be accompanied by sufficient documentation of record of sales and receipts related to the concession agreement.

The Landlord shall have the right to inspect accounting and tax records upon demand for financial information related to the concession payments. Tenant shall permit the Town or its duly authorized representative to inspect and audit appropriate books and records at any reasonable time during normal

business hours after giving Tenant at least twenty-four (24) hours' notice of the time and day of such inspection and audit.

The rent payment for the use of the building will be adjusted annually based on the percentage change in the CPI for the preceding year, using the most currently available data. The CPI used will be the Consumer Price Index for All Urban Consumers (CPI-U) for the South Region as published by the Bureau of Labor Statistics. The base month for the CPI will be the month in which the lease term commences. The adjustment will be calculated by dividing the CPI for the current year by the CPI for the base year and multiplying the result by the rent amount in effect at the beginning of the lease term. The resulting amount will be the new rent amount for the next lease year."

In no case shall the increase be less than 3% or more than 10% annually. 4. TAXES AND ASSESSMENTS.

Landlord shall list the Premises for real property taxes and pay all tax assessments of whatever kind or nature assessed against the Premises, excluding, however, any tax assessed against leasehold improvements made by Tenant. Tenant shall list for taxes and pay all tax assessments of whatever kind or nature assessed against or on Tenant's furnishings, inventory, equipment, leasehold improvements and other property situated or placed upon, in, or about the Premises.

5. UTILITIES. Tenant shall be responsible for payment of and shall contract directly with the providers of any utility services to be provided to the Premises.

6. USE OF PREMISES. The Premises shall be used by Tenant solely for the Permitted Uses as described in Exhibit 1, subject to any zoning and other required approvals. Tenant shall not use or permit the Premises to be used for any other purpose without the prior written consent of Landlord. Tenant at all times shall fully and promptly comply with all laws pertaining to the Premises and Tenant's business operations thereon, including, but not limited to, such as shall relate to the cleanliness, safety, occupancy and use of the Premises and the nature, character and use of the Premises. Tenant, at its sole cost, shall be permitted to erect signs at the Premises so long as same comply with all applicable laws and ordinances.

7. LANDLORD RESPONSIBILITIES:

- (A) Deck? Dimensions to be finalized on Mike Williams full review of any pertinent set-backs.
- (B) Landlord will add up to four additional parking spaces adjacent to the current side-building parking. Contingent on approval by the Community Development Department.
- (C) To provide horizontal grooves into the existing concrete boat ramp for safer use by non-motorized craft guests.

8. EXAMINATION OF PREMISES. The Premises have been delivered to Tenant with all building systems working properly. Tenant has examined the Premises and Tenant's execution of this Lease shall constitute conclusive evidence that as of the date hereof the Premises are in good order and satisfactory condition.

9. MAINTENANCE AND REPAIRS. Tenant, at its sole cost and expense, shall promptly repair and at all times maintain the interior and exterior of the Premises (including without limitation the roof, mechanical, electrical and plumbing systems, grounds and landscaping) in good condition, reasonable

wear and tear excepted. Tenant shall make no alterations without express written consent of the landlord.

10. WAIVER OF SUBROGATION. Neither Tenant nor anyone claiming by, through, under, or on Tenant's behalf shall have any claim, right of action, or right of subrogation against the Landlord for or based upon any loss or damage caused by fire, explosion or other casualty relating to the Premises or to any property upon, in or about the Premises, whether such fire, explosion or other casualty shall arise from the negligence of Landlord, its agents, representatives or employees, or otherwise.

11. INSURANCE/INDEMNIFICATION. (Insurance requirements subject to change or modification by the Town of Lake Lure Risk Management Specialist)

11.1 Property Insurance. Throughout the Term, Tenant shall, at its sole expense, maintain in effect a fire insurance policy with extended coverage insuring against loss or damage to the Premises in amounts and with companies as Landlord reasonably approves. Tenant shall maintain and care for its personal property on the Premises, insure the same to such extent as it deems appropriate, and shall neither have nor make any claim against Landlord for any loss or damage to the same, regardless of the cause thereof.

11.2 Liability Insurance. Throughout the Term, Tenant shall, at its sole expense, maintain in effect a general public liability policy with coverage of at least 2 Million and No/100 Dollars (\$ 2,000,000.00) per occurrence and at least 2 Million and No/100 Dollars (\$ 2,000,000.00) in the aggregate.

11.3 Evidence of Required Coverage. Prior to the Commencement Date, Tenant shall provide Landlord with copies of the insurance policies required to be maintained pursuant to Sections 11.1 and 11.2 above, together with evidence of payment of all premiums therefore. At least fifteen (15) days prior to the expiration or termination date of either such policy, the Tenant shall deliver to the Landlord a renewal or replacement policy with proof of payment of the premium therefore. Landlord shall be named as an additional insured under each policy as follows:

Town of Lake Lure

Attn: William H. Perkins, Jr.

Town Manager

P.O. Box 255

Lake Lure, NC 28746

11.4 Indemnification. Tenant shall indemnify and save the Landlord harmless from and against all claims, actions, damages, liability and expense in connection with loss of life, bodily injury, personal injury and damage to property occurring in or about, or arising out of, the Premises occasioned wholly or in part by any act or omission of the Tenant, its agents, licensees, contractors, customers, invitees or employees.

In case the Landlord shall be made a party to any litigation commenced by or against Tenant, its agents, contractors, customers or employees by reason of the Tenant's actions, the Tenant shall protect, indemnify and hold the Landlord harmless and pay all damages, costs, expenses and reasonable attorneys' fees incurred or paid by the Landlord in connection with such litigation.

12. CARE/RETURN OF PREMISES.

12.1 Care of Premises. Tenant shall not permit, allow or cause any act or deed to be performed upon, in or about the Premises that shall cause or be likely to cause injury to any person or to the Premises. Tenant shall at all times keep the Premises in a neat and orderly condition. Tenant agrees to take reasonable care of the Premises and agrees to pay for all repairs to the Premises necessitated by the fault of Tenant, its employees, agents, customers or guests. Tenant shall store all trash and garbage within appropriate containers at the Premises and shall provide for prompt and regular removal thereof.

12.2 Return of Premises. Upon the termination of this Lease, Tenant shall return the Premises to Landlord substantially in the same condition as received, ordinary wear and tear excepted.

13. HOLDING OVER. In the event Tenant remains in possession after the expiration of the Term without the execution of a new lease, Tenant shall not acquire any right, title or interest in or to the Premises. In such event, Tenant shall occupy the Premises as a tenant from month-to-month at a new monthly Rent equal to 150% of the monthly Rent for the last month of the Term, and shall otherwise be subject to all of the conditions, provisions and obligations of this Lease insofar as the same shall be applicable. Notwithstanding the above, Landlord shall have the right to summary ejectment of Tenant as provided by law.

14. ASSIGNMENT AND SUBLEASE. Tenant may not assign or encumber this Lease and may not sublet all or any part of the Premises without the prior written consent of Landlord.

15. DEFAULT/REMEDIES.

15.1 Default. If one or more of the following events (collectively, "Events of Default") shall occur and shall continue for such time after notice required to be given is given as hereinafter provided, to-wit:

- (A) If Tenant shall fail to pay any rent or any other sum due in accordance with the terms of this Lease and such default shall continue for a period of five (5) days after such payment is due hereunder; or
- (B) if Tenant shall fail to keep or perform or abide by any other term, condition, covenant or agreement of this Lease, and such default shall continue for a period of thirty (30) days after written notice to Tenant thereof; or
- (C) If Tenant shall file a petition in bankruptcy or take or consent to any other action seeking any such judicial decree or shall make any assignment for the benefit of its creditors or shall admit in writing its inability to pay its debts generally as they become due, or if any court of competent jurisdiction shall enter a decree or order adjudicating it bankrupt or insolvent, or if any trustee or receiver for Tenant or for any substantial part of its property be appointed, or if any person shall file a petition for involuntary bankruptcy against Tenant and such appointment or petition shall not be stayed or vacated within sixty (60) days of entry thereof; or
- (D) If Tenant's interest in this Lease or the Premises shall be subjected to any attachment, levy or sale pursuant to any order or decree entered against Tenant in any legal proceeding and such order or decree shall not be vacated within thirty (30) days of entry thereof; or
- (E) If Tenant shall use the property for any use other than the Permitted Use(s):

then and in any such event Landlord, without declaring a termination of this Lease (which right is, however, unconditionally reserved), may at its election exercise one or more of the remedies contained in Section 15.2 herein, in addition to any other remedies available to Landlord at law, in equity or pursuant to the terms of this Lease;

15.2 Remedies Upon Default.

(A) Upon the occurrence of any Event of Default as set forth above, Landlord shall have the right, at its option, to utilize any one or more of the following rights:

(i) Landlord, with or without terminating this Lease, immediately or at any time thereafter, may make any payment required of Tenant and/or re-enter the Premises and correct or repair any condition which shall constitute a failure of Tenant's part to keep or perform or abide by any term, condition, covenant or agreement of this Lease. Tenant shall reimburse and compensate Landlord as additional rent within fifteen (15) days after delivery of any statement to Tenant by Landlord for any expenditures made by Landlord in making such payment and/or corrections or repairs.

(ii) Landlord, with or without terminating this Lease, immediately or at any time thereafter, may demand in writing that Tenant vacate the Premises. Tenant shall vacate the Premises and remove therefrom all property thereon belonging to Tenant within three (3) days of receipt by Tenant of such notice from Landlord, whereupon Landlord shall have the right to re-enter and take possession of the Premises.

(iii) Landlord, with or without terminating this Lease, immediately or at any time thereafter, may re-enter the Premises and remove Tenant therefrom and all property belonging to or placed on the Premises by, at the direction of, or with the consent of Tenant.

(iv) Landlord, with or without terminating this Lease, immediately or at any time thereafter, may re-let the Premises for such time and at such rent and upon such other terms and conditions as Landlord in its sole discretion may deem advisable; and Landlord may make any alterations or repairs to the Premises which it may deem necessary or proper to facilitate such re-letting. Tenant shall pay all costs of such re-letting, including the cost of any such repairs to the Premises; and, if this Lease shall have not been terminated, Tenant shall continue to pay all rent due under this Lease up to and including the date of beginning of payment of rent by any subsequent tenant of the Premises, and thereafter Tenant shall pay monthly during the remainder of the term of this Lease the difference, if any, between the rent collected from any such subsequent tenant or tenants and the rent reserved in this Lease, but Tenant shall not be entitled to receive any excess of any such rents collected over the rents reserved herein.

(v) Landlord, immediately or at any time thereafter, may terminate this Lease without notice or demand to vacate the Premises. This Lease shall be deemed to have been terminated upon receipt by Tenant of written notice of such termination, and upon such termination, Landlord shall have and recover from Tenant all damages Landlord may suffer by reason of such termination, including, without limitation, the cost (including legal expenses and reasonable attorneys' fees) of recovering possession of the Premises, and the cost of any repairs to the Premises which are necessary or proper to prepare the same for re-letting. In addition thereto, Landlord, at its election, shall have and recover from Tenant either (i) an amount equal to the excess, if any, of the total amount of all rents to be paid by Tenant for the remainder of the Term of this Lease over the then reasonable rental value of the Premises for the remainder of the term of this Lease, or (ii) the rents which Landlord would be entitled to receive from

Tenant pursuant to the provisions of subsection (iv) above if the Lease were not terminated. Such election shall be made by Landlord's giving Tenant written notice thereof within thirty (30) days after the notice of termination.

(B) In the event of any re-entry of the Premises by Landlord pursuant to any of the provisions of this Lease, Tenant hereby waives all claims for damages which may be caused by such re-entry by Landlord, except such claims as arise from the gross negligence or willful misconduct of Landlord; and Tenant shall hold Landlord harmless from any loss, costs (including legal expenses and reasonable attorneys' fees) or damages suffered by Landlord by reason of such re-entry and storage of Tenant's property, if any. No such re-entry shall be considered or construed to be a forcible entry.

(C) Upon any breach of this Lease, regardless of whether such breach is, or becomes, an Event of Default, Landlord shall be reimbursed for any and all reasonable expenses incurred by Landlord, including legal expenses and reasonable attorneys' fees, in enforcement of the terms and provisions of this Lease if the Landlord is the prevailing party.

(D) The exercise by Landlord of any one or more of the remedies provided in this Lease shall not prevent the subsequent exercise by Landlord of any one or more of the other remedies herein provided. All remedies provided for in this Lease are cumulative and may, at the election of Landlord, be exercised alternatively, successively, or in any other manner and are in addition to any other rights provided by law.

16. COVENANT OF TITLE AND QUIET ENJOYMENT. Landlord covenants and warrants to Tenant that Landlord has full right and lawful authority to enter into this Lease for the Term hereof and that, provided Tenant is not in default hereunder, Tenant's quiet and peaceable enjoyment of the Premises shall not be disturbed by anyone claiming through Landlord.

17. INSPECTION. The Landlord at all times shall have the right to inspect and enter the Premises. Except in the case of emergencies, Landlord shall give Tenant reasonable prior notice of such entry.

18. BROKERS. Each party warrants that it has had no dealings with any broker in connection with the negotiations or execution of this Lease, and agrees to indemnify the other and hold it harmless from and against any and all cost, expense or liability for commissions or other compensation or charges claimed by any broker or agent acting with respect to this Lease.

19. MISCELLANEOUS.

19.1 Interest and Late Charges. Any sums due to be paid by Tenant to or for the benefit of Landlord which are not paid when due shall bear interest from the due date to the date of payment at the maximum rate of interest allowed by law. In addition, the failure to pay any sums due by Tenant to or for the benefit of Landlord within ten (10) days after such sums are due hereunder shall entitle Landlord to collect a late payment charge from Tenant in the amount of 10% of rent due.

19.2 Notices. All notices and written consents required under this Lease shall be in writing and shall only be deemed properly served when served by actual hand delivery or when posted by certified United States mail, postage prepaid, return receipt requested, addressed to the party to whom directed at the following address or at such other address as may be from time to time designated in writing.

Notices to Landlord: Town of Lake Lure

P.O. Box 255

Lake Lure, NC 28746

Attn: William H. Perkins, Jr., Town Manager

Email: whperkins@townoflakelure.com

(828) 625-9983 ext. 101

Payments to Landlord: Town of Lake Lure

Finance Department

PO Box 255

Lake Lure, N.C. 28746

Attn: Stephen Ford, Finance Director

Email: sford@townoflakelure.com

(828) 625-9983 ext. 102

Notices to Tenant: ???????????????

Address

Attn:

Email:

Notice shall be deemed served upon the earlier of actual receipt or the expiration of three (3) business days after posting.

19.3 Recording. This Lease shall not be recorded.

19.4 Additional Acts. Each party will execute and deliver all such other and additional instruments and documents and do all such other acts and things as may be necessary to more fully effectuate this Lease.

19.5 Entire Agreement. This Lease shall constitute the entire agreement of the parties; all prior agreements between the parties, whether oral or written, are merged herein and shall be of no force and effect. This Lease cannot be changed, modified or discharged other than by an agreement in writing, signed by the party against whom enforcement of the change, modification or discharge is sought.

19.6 Binding Effect. Each and all of the covenants, terms, provisions, and agreements herein contained shall be binding upon and inure to the benefit of the parties hereto and, to the extent permitted by this Lease, their respective heirs, executors, administrators, legal representatives, successors and assigns.

19.7 Construction. This Lease, and the application or interpretation hereof, shall be governed exclusively by its terms and by the laws of the State of North Carolina.

19.8 Waiver. The delay or failure of Landlord to seek redress for violation of or to insist upon the strict performance of any covenant or condition of this Lease shall not prevent a prior or subsequent act,

which would have originally constituted a violation, from having the effect of an original violation. Any waiver by Landlord of any breach or default by Tenant must be in writing and will be effective only to the extent specifically set forth in such writing.

19.9 Severability. Every provision of this Lease is intended to be severable. If any term or provision is illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder hereof.

20. ASSIGNMENT AND SUBLEASE. Tenant may not assign or encumber this Lease and may not sublet all or any part of the Premises without the prior written consent of Landlord, which shall be in Landlord's sole discretion.

21. Tenant, and all contractors, shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, "Verification of Work Authorization," and will provide documentation or sign affidavits or any other documents requested by Town demonstrating such compliance.

22. The sole and exclusive jurisdiction and venue for any action, suit or litigation arising from or related to this agreement shall be in the state courts located in the State of North Carolina. In the event that either party brings suit to enforce the terms of this Agreement, both parties consent and agree that jurisdiction for such action will lie only in the state courts sitting in Rutherford County, North Carolina.

IN WITNESS WHEREOF, the parties hereto have caused this Lease to be executed as of the date and year first above written.

Landlord:

Town of Lake Lure,

By: _____
Carol Pritchett, Mayor

ATTEST: _____
Olivia Stewman, Town Clerk

(TOWN SEAL)

Tenant:

Name of Tenant and/or Corporation

By: _____

Name: _____

Title: _____

NOTARY ON FOLLOWING PAGE

NORTH CAROLINA

RUTHERFORD COUNTY

I, _____, a Notary Public in and for said County and State, do hereby certify that Carol C. Pritchett, Mayor of the Town of Lake Lure, and Olivia Stewman, Town Clerk for the Town of Lake Lure, personally came before me this day and being duly sworn says each for herself that she knows the corporate seal of the Town of Lake Lure and that the seal affixed to the foregoing instrument is the corporate seal of the Town of Lake Lure, that Carol C. Pritchett, Mayor and Olivia Stewman, Town Clerk subscribed their names thereto; that the corporate seal for the Town of Lake Lure was affixed thereto, all by virtue of a resolution or other official action of the Board of Commissioners, and that said instrument is the act and deed of the Town of Lake Lure.

IN WITNESS WHEREOF, I have set my hand and notarial seal this the ____ day of _____ 2024.

_____(OFFICIAL SEAL)

Notary Public:

Printed Name

Commission Expires: _____

NORTH CAROLINA

RUTHERFORD COUNTY

I, _____, Notary Public, do hereby certify that Kenneth S. Tanner, III personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal this ____ day of _____, 2024.

(Official Seal)

Official Signature of Notary

Notary's Printed or Typed Name

My commission expires: _____

=====

EXHIBIT 1

November 1, 2023

To: Hank Perkins, Town Manager-Lake Lure, NC
From: Wade Oppliger & Leslie Rowland (Lake Lure Rowing Club)
Paul & Cara Brock (Lured Market & Grill, Lured On-The-Fly, Sunken Buffalo)
RE: LOI-Lake Lure Building Lease Question (Revised 10.20.23)

Good day Mr. Perkins,

We present to the Town of Lake Lure our proposal to lease of the building at 2654 Memorial Highway and to formalize the Town's allowance for the Lake Lure Rowing Club operations at the adjacent town property.

We are offering: \$4000.00/month for the building plus a 15% concession agreement payment for revenue generated via our rowing operations and rentals, paid to the town monthly.

Lease term commences on January 1, 2024 with rent payment commencement on April 1, 2024 or earlier, at lessees' discretion based on build-out completion.

Term of the lease we request is 5-year plus one 5-year option. We anticipate cost of living increase for the building rent. We also request a first right of refusal at the end the ten-year period.

Structural improvements to the building become Town property with the exception of fixtures and lighting.

Lake Lure Rowing retains ownership of movable, floating docks that may be used during term of the lease. Permanent docks, dock improvements and boathouse structures will remain on site and will become property of the Town at the end of the final lease term.

We have reviewed the site with Mike Williams and discussed our plans. Based on that meeting, please find our following requests.

1. We would like the Town to build a deck on the backside of the building. This addition will enhance our planned use of the building and will increase the value and future appeal of the property. Dimensions to be finalized on Mike Williams full review of any pertinent set-backs.
2. We would like the Town to add three to four additional parking spaces adjacent to the current side-building parking. Council mentioned the potential for this allowance at the work session on 10.25.23. We reviewed the understood location with Mike Williams.
3. Upon consideration and approval by the appropriate Town boards, we ask the Town to allow cover-structures to be placed (or built) to function as boathouses for the Lake Lure Rowing sculls, equipment and rental craft, protecting and facilitating a neat/kept presentation of the equipment. These historical structures are open on three sides, measure approximately 24' x 19' over a slanted back to front angled roofline. Currently, the historical structures are 11'6" tall at the roof peak, we expect to add an 18-24" footer to increase the interior height by the same amount, increasing usability of the structures. They will be placed side-to-side creating a 96' x 19' footprint.
4. To facilitate better access to Lake Lure by non-motorized craft, we request the following—pending approval by the appropriate Town boards;
 - a. The Town cut horizontal grooves into the existing concrete boat ramp for safer use by non-motorized craft guests.

- b. Town allows Lake Lure Rowing to repurpose and use the existing boat slips/dock to the north of the Town boathouse. Lowering them to appropriate level for non-motorized access (approximately 8" above the full pond lake height) using the existing posts
- c. Lake Lure Rowing granted approval to build a 65'(l) x 10'(w) x 8"(h) dock for rowing shell launch and landing. (Eight-oar boats are 57' in length, 65' will allow shallow shoreline water avoidance and the ability for all 9 crew members to enter or exit the boat simultaneously. Such a dock is a significant selling feature to attract visiting crews to Lake Lure.

After our review of the interior space and subsequent consultation with Mike Williams, we plan to proceed with updates and possible alteration of the interior space of the building to best accommodate our business model. We understand and accept the financial responsibility for any changes.

Dimensions of the outside deck addition can be discussed respecting any restrictions illustrated by Mike Williams—but the expectation would be for the deck to be of a size to provide comfortable, functional space for customers to enjoy food and drink while enjoying the views.

Complementing our curated assortment of water-focused, outdoor gear will be an offering of healthy, high energy/protein food and drink. We will focus on convenient, high-quality food and beverages for guests and residents alike.

We plan on greatly adding to the current offering of Lured Market, creating a full-service, local market carrying:

- * a complete assortment of meats, cheeses, gourmet canned foods, pastas, ingredients, sauces, and ready-to-eat gourmet meals and grab-and-go sandwiches prepared by the Lured Grill staff
- * carry fresh Carolina seafood, local beef, poultry, pork and eggs and in-season, fresh produce.
- * a line local bread, baked goods and pastries
- * we'll continue to carry an expanded sundries and basic household and vacation rental necessities
- * we plan to add to our local art and hand-crafted goods.
- * we will introduce a wine shop expanding greatly our already curated wine selection and offering wine education classes and tastings on a regular basis
- * we will also add an even broader retail selection of local and domestic beer, hard cider and seltzers.

Brand new will be a full gourmet coffee shop with hot and cold coffee drinks, espresso, etc. a service many Lake Lure residents have been requesting the past four years. Additionally, we will offer smoothies, fresh juices and a presentation of healthy, high-energy snacks and drinks. Overall, we believe an expanded Lured Market can better serve our local community as well as our visitors with a broader selection of quality food, drink and merchandise while creating a great starting point for the day's activity planning and a great spot to wind down.

Rowing & Non-motorized Watercraft Activity Center (15% Concession contribution to Town, paid monthly)

Requests listed above. As revenue allows, we will propose adding a floating dock (Connect-a-dock or similar) that would run along some of the shoreline from the current boathouse, south to the existing non-motorized craft boat ramp. This addition will facilitate additional water activity access from the current park area.

We will provide boat/water activity safety and Lake Lure rules to all renters and have information available in the Lured shop and at the location where watercraft are rented, leveraging the opportunity provided by the consolidation of non-motorized access to Lake Lure.

We will add a rowing/watercraft rental component based at this location. Beginning Spring 2024 (after the lake has returned to full pond) we intend to start with 6-10 row boards. Estimates can increase if we are allowed more types of watercraft to rent.

Monthly revenue at start up (and through the 2024 season) will be \$2400.00/month.**

(**this is accretive revenue—not transferred revenue accomplished by the move from the beach to this area)

Events, activities and guide services will contribute to the concession agreement paid to the Town of Lake Lure.
Monthly revenue at start up. \$400.00/month.

Having a boathouse and rowing dock access will also benefit Lake Lure by having facilities to host additional college and prep rowing teams in the future. I am researching use fees for other locations—but in addition to the economic benefit provided by schools and teams visiting Lake Lure through hotel stays, food and such, I believe modest fees are paid for use of the local rowing club’s facilities.
Potential revenue \$250-\$500/team for use of our facilities + lodging/food/local transport and general needs.

Re-capping concession revenue estimates for year one of operations:

Juniors Rowing	\$800.00/month
Rowing craft rentals	\$24000.00/month
Events/Guide Services	\$TBD
At large rowing based events:	\$TBD
2024 Monthly Estimated Rev:	\$3200.00/month (\$38,400.00/year)
15% to Town of Lake Lure:	\$480.00/month (\$5760.00/year)

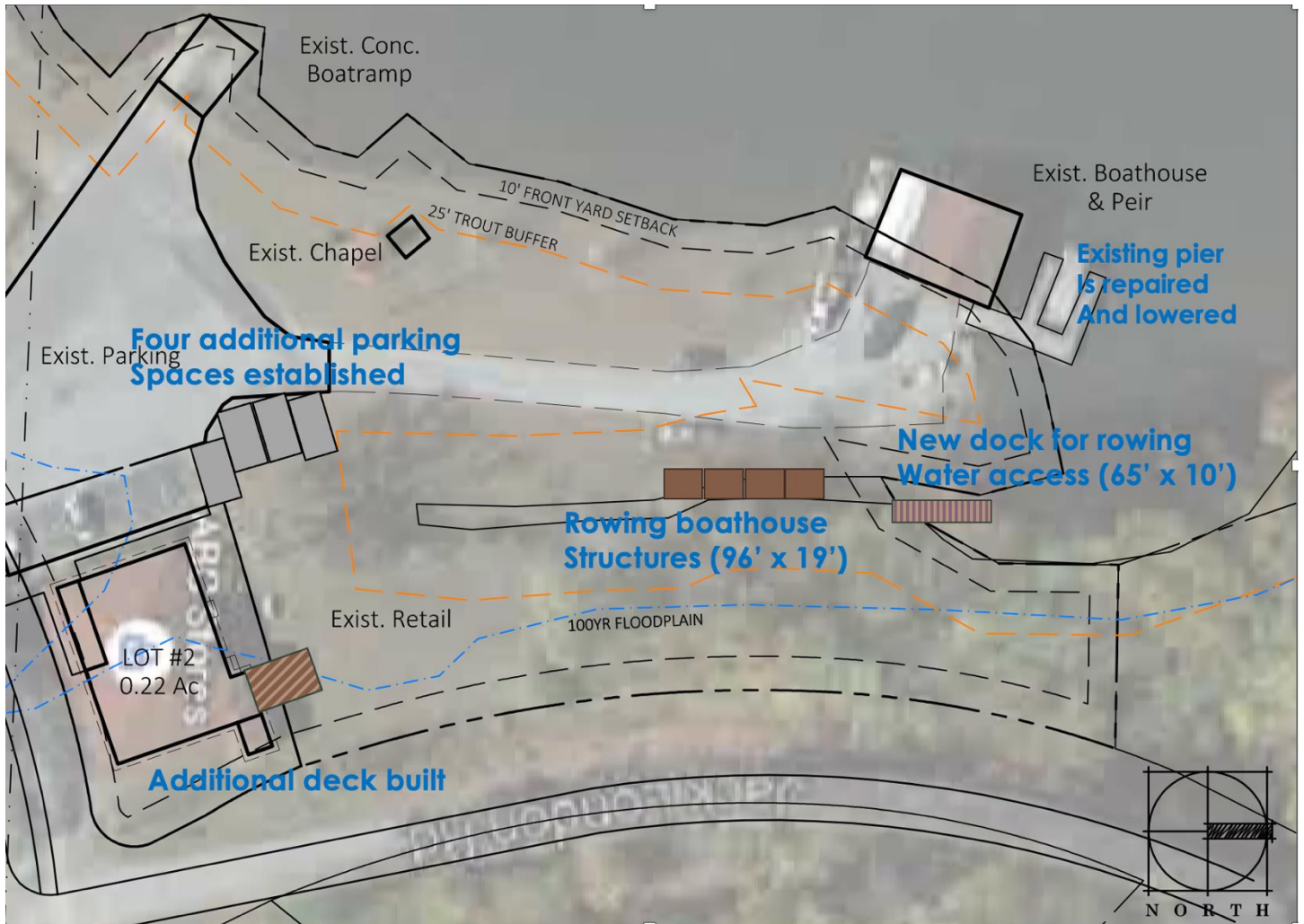
Annual growth estimated at 25% over the next four years:

Year	Revenue	Concession Payments
2025	\$48,000.00	\$7,200.00
2026	\$60,000.00	\$9,000.00
2027	\$75,000.00	\$11,250.00
2028	\$93,750.00	\$14,062.50

Thank you for your consideration. We are available for any questions or clarifications.

Wade

Wade Oppliger, Managing Partner
Leslie Rowland, Financial Partner
Paul & Cara Brock, Financial and Managing Partners



**LAKE LURE TOWN COUNCIL
AGENDA ITEM REQUEST FORM
Meeting Date: January 24, 2024**

SUBJECT: Review Volunteer Board Applications

AGENDA INFORMATION:

Item Number: VIII
Department: Administration
Contact: Olivia Stewman, Town Clerk
Presenter: Hank Perkins, Town Manager

BRIEF SUMMARY:

Town Council will make volunteer board appointments at the February regular meeting. Boards have been provided with all active applications to date and most have made recommendations to Council. Council will review the applications.

RECOMMENDED MOTION AND REQUESTED ACTIONS:

N/A

ATTACHMENTS:

Active Volunteer Board Applications; Draft Ballots

STAFF COMMENTS AND RECOMMENDATIONS:

N/A

ABC Board

LAKE LURE ABC BOARD
(Three Year Appointment)

List of candidates to be considered to fill one regular position on the ABC Board with a term expiring in 2027.

Candidates currently serving as regular members seeking reappointment:

- 1. Peter O'Leary

Name of Candidate for Position #1 _____
Term Expiring: 2027

Signature of Commissioner: _____
Date: February 13, 2024



VOLUNTEER APPLICATION FORM

Name: Peter C. O'Leary
Address: PO Box 193 Chimney Rock NC 28720 Lake Lure Resident for 33 years in ANG. years
Home Phone: 828-625-2479 Cell Phone: 828-545-1247 Email: bubbaolearys@bellsouth.net
Employer: Bubba O'Leary's Gen Store Address: 385 Main St CR, NC 28720

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board	ABC Board

Rationale and qualifications for serving: Business background, interested in
serving the area.

Other volunteer activities in which you are currently involved, including other Boards or Committees:

CR Village Council, CR VFD

Other information you feel might be pertinent, including current or prior occupation or resume:

Currently serving on ABC Board.

Signature: Peter C. O'Leary Date: 12-18-23

**Board of Adjustment
&
Lake Structure Appeals
Board**

**BOARD OF ADJUSTMENT / LAKE STRUCTURES APPEAL BOARD
(Three Year Appointment)**

List of candidates to be considered for appointment to fill four regular positions and one alternate position with terms expiring in 2027.

Candidates currently serving on the board seeking reappointment:

1. Neil Gurney
2. Melvin Owensby

Candidates not currently serving on the board to be considered for appointment:

1. David Lusk
2. Tim Nates
3. Marcus & Cheryl Daugvila

Name of Candidate for Regular Position	#1	_____
Term Expiring: 2027		

Name of Candidate for Regular Position	#2	_____
Term Expiring: 2027		

Name of Candidate for Regular Position	#3	_____
Term Expiring: 2027		

Name of Candidate for Regular Position	#4	_____
Term Expiring: 2027		

Name of Candidate for Alternate Position	#1	_____
Term Expiring: 2027		

Signature of Commissioner:	_____
Date: February 13, 2024	



VOLUNTEER APPLICATION FORM

Name: NEIL GURNEY
Address: 174 HAUNAERS POINT Lake Lure Resident for 8 years
Home Phone: — Cell Phone: 828 2735685 Email: N. GURNEY @ GATEWAYWF.ORG
Employer: GATEWAY FOUNDATION Address: 74 N GARDEN ST, MARTIN NC

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board	ABC Board

Rationale and qualifications for serving: CONTINUOUS TO SERVE

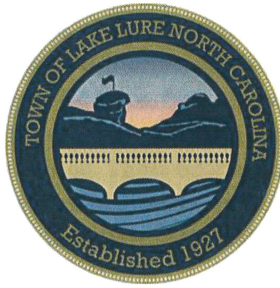
Other volunteer activities in which you are currently involved, including other Boards or Committees:

HEART RUTHERFORD HOUSING PARTNERSHIP BOARD

Other information you feel might be pertinent, including current or prior occupation or resume:

NONE

Signature: [Signature] Date: 12/19/2023



VOLUNTEER APPLICATION FORM

Name: Melvin Owensby

Address: 1808 Memorial Hwy Lake Lure Resident for 62 years

Home Phone: 625-8395 Cell Phone: _____ Email: M Owensby 557 AT&T mail
com

Employer: _____ Address: _____

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE



Board of
Adjustment & Lake
Structure Appeals
Board



Zoning & Planning
Board



Lake Advisory
Board



Parks & Recreation
Board



ABC Board

Rationale and qualifications for serving: I currently serve on this board
and have knowledge & experience of the town &
board activities.

Other volunteer activities in which you are currently involved, including other Boards or Committees:

None

Other information you feel might be pertinent, including current or prior occupation or resume:

Board experience

Signature: Melvin Owensby Date: 9-4-23



VOLUNTEER APPLICATION FORM

Name: DAVID LUSK

Address: 217 SUNSET COVE Lake Lure Resident for 13 years

Home Phone: 625-5186 Cell Phone: 828-289-9847 Email: ON FILE

Employer: Retired Address: _____

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE



Board of
Adjustment &
Lake Structure
Appeals Board



Zoning &
Planning Board



Lake Advisory
Board



Parks &
Recreation
Board



ABC Board



Utility
Advisory
Board



Isothermal
Planning &
Development
Commission
(IPDC)

Rationale and qualifications for serving: HAVE BEEN ON BOARD IN PAST. LEFT BOARD
IN 2019 TO JOIN LAB - ATTACHED

Other volunteer activities in which you are currently involved, including other Boards or Committees:

LAKE LURE FIRE + RESCUE FOR 9 YRS. VOLUNTEER FOR LAKE DEBRIS
BUOYS - FISH HABITAT (TREES) + WATER SAMPLES

Other information you feel might be pertinent, including current or prior occupation or resume:

RETIRED CONTRACTOR - COMMERCIAL + RESIDENTIAL FOR 45 YRS.

Signature: _____

David Lusk

Date: _____

12/5/23

David B. Lusk
217 Sunset Cove
Lake Lure, NC 28146

Friday, October 25, 2019

Mark Hoek, Chairman
Board of Adjustment/Lake Structures Appeal Board
Town of Lake Lure
2948 Memorial Hwy
Lake Lure, NC 28746

Dear Mark,

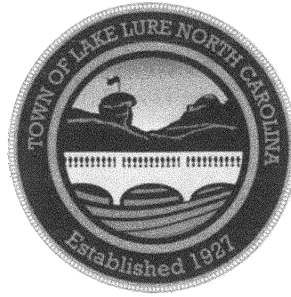
Please accept my resignation from the Board of Adjustment and the Lake Structures Appeal Board. I have decided to seek a position on the Lake Advisory Board.

The rules allow a citizen to sit on two appointed boards, but the last time I sought a position on the Lake Advisory Board I was informed that the BOA/LSAB counted as two boards, and thus disqualified me.

Thank you.

David B. Lusk

Cc: Stephen Webber, Council Liaison
Michelle Jolly, Town Clerk



VOLUNTEER APPLICATION FORM

Name: Tim Nates

Address: 161 Holmstead Dr. Lake Lure Resident for 3 years

Home Phone: _____ Cell Phone: 8133299244 Email: timnates@gmail.com

Employer: Retired Address: Boeing Commercial Aircraft - 787

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board	ABC Board	Utility Advisory Board	Isothermal Planning & Development Commission (IPDC)

Rationale and qualifications for serving: Suggested to Apply by Rich and Kim
Sayles. Bachelor of Science Degree - Presbyterian College.
Prior Board of Directors Member - Charleston SC Juvenile Diabetes Assoc.

Other volunteer activities in which you are currently involved, including other Boards or Committees:

Rutherford Outdoor Council

Other information you feel might be pertinent, including current or prior occupation or resume:

Federal Law Enforcement Training Center - Charleston, SC
Member Pi Kappa Alpha / Operations Lead - United Airlines
Boeing Employee Involvement Member

Signature: Tim Nates

Date: 9-18-23



VOLUNTEER APPLICATION FORM

Name: MARIUS & CHERYL DAUGVILA
Address: 180 BLARNEY RD Lake Lure Resident for 2 years
Home Phone: 885195819 Cell Phone: 630.991.3631 Email: MDAUG17@GMAIL.COM
Employer: SELF-RETIRED Address: CHETATOTAL@GMAIL.COM

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

RE: DENN



Board of
Adjustment & Lake
Structure Appeals
Board



Zoning & Planning
Board



Lake Advisory
Board



Parks & Recreation
Board



ABC Board



Utility Advisory
Board

Rationale and qualifications for serving: MOM & EXPERIENCE IN CONSTRUCTION,
CODES, PLANNING & MAINTENANCE BACKGROUND, 2 YEAR
FULL TIME RESIDENT. (RE: CROSSING GUARD DUTY)

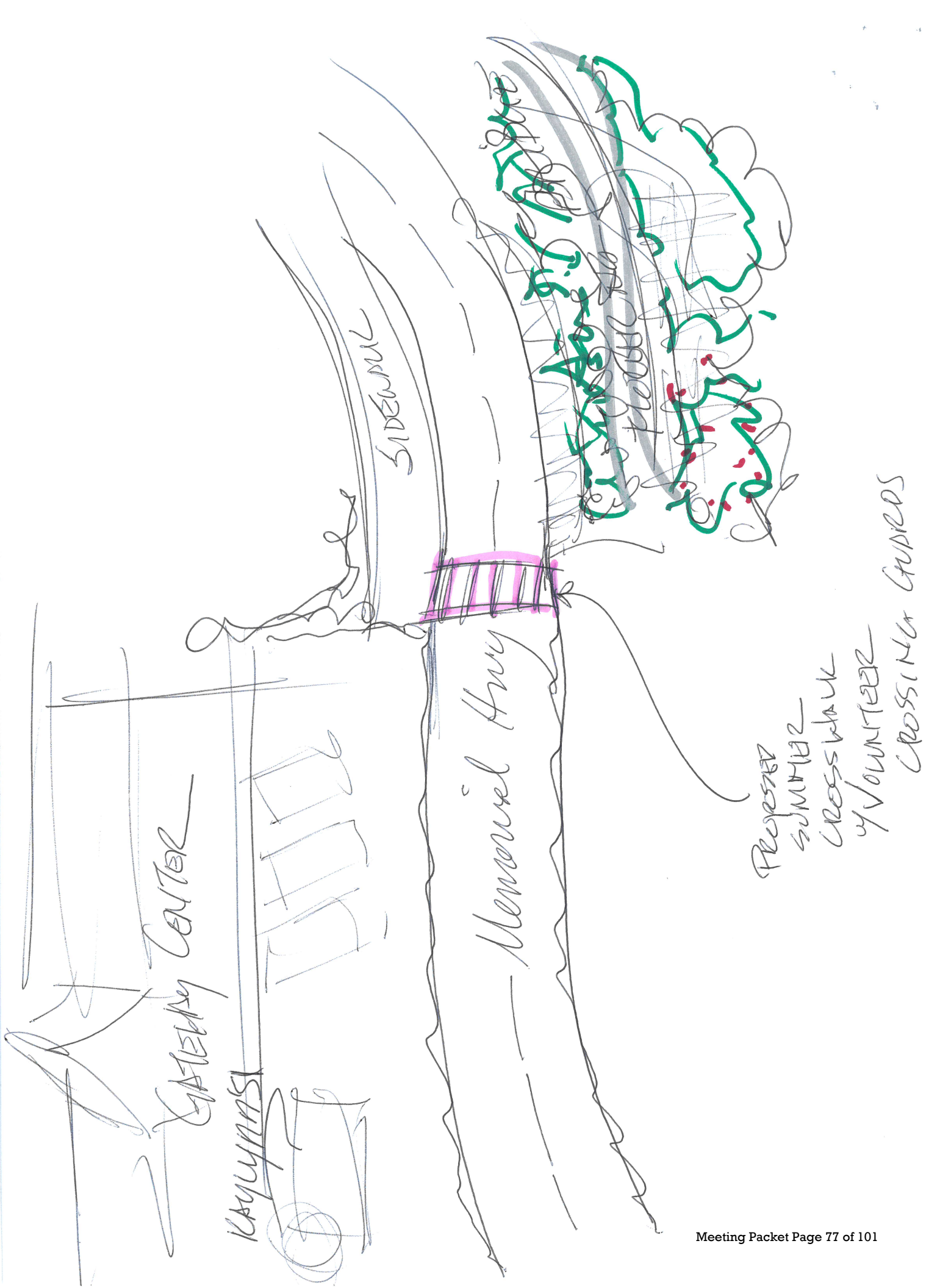
Other volunteer activities in which you are currently involved, including other Boards or Committees:

FLOWERING BRIDGE, EARTH DAY CHAIR, NEIGHBORHOOD WATCH DOG,
VOLUNTEER + VOLUNTEER

Other information you feel might be pertinent, including current or prior occupation or resume:

WE PROPOSE A CROSSWALK FROM THE FLOWERING BRIDGE
TO THE SIDE WALK ON THE OTHER SIDE OF THE BRIDGE.
THIS HELPS TOURISTS GET TO KAYLYNN'S SAFELY

Signature: _____ Date: _____



Lake Advisory Board

LAKE ADVISORY BOARD
(Three Year Appointment)

List of candidates to be considered to fill three positions on the Lake Advisory Board with terms expiring in 2027.

Candidates currently serving as regular members seeking reappointment:

- 1. David Lusk
- 2. Sonya Ledford
- 3. Richard Sayles

Candidates not currently serving on the Board seeking appointment:

- 1. Charlie Nance

Name of Candidate for Position #1 _____
Term Expiring: 2027

Name of Candidate for Position #2 _____
Term Expiring: 2027

Name of Candidate for Position #3 _____
Term Expiring: 2027

Signature of Commissioner: _____
Date: February 13, 2024



VOLUNTEER APPLICATION FORM

Name: DAVID B. LUSK

Address: 217 SUNSET COVE Lake Lure Resident for 10 years

Home Phone: 625-5786 Cell Phone: 828-289-9847 Email: DAVIDBLUSK@gmail.com

Employer: Retired Address: N/A

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

☐

Board of
Adjustment &
Lake Structure
Appeals Board

☐

Zoning &
Planning Board

☒

Lake Advisory
Board

☐

Parks &
Recreation
Board

☐

ABC Board

☐

Utility
Advisory
Board

☐

Isothermal
Planning &
Development
Commission
(IPDC)

Rationale and qualifications for serving: Already on board

Other volunteer activities in which you are currently involved, including other Boards or Committees:

LAKE LURE FIRE + RESCUE - LAKE DEBRIS & BUOY RELOCATION, REPLACEMENT

Other information you feel might be pertinent, including current or prior occupation or resume:

being a 1st responder helps me with EMERGENCY preparedness

Signature: David Lusk Date: 11/06/23



VOLUNTEER APPLICATION FORM

Name: RICHARD SAYLES
Address: 122 HARRIS RD Lake Lure Resident for 5 years
Home Phone: _____ Cell Phone: 704-577-6162 Email: RICHARD.SAYLES13@GMAIL.COM
Employer: SELF Address: _____

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

☐
Board of
Adjustment & Lake
Structure Appeals
Board

☐
Zoning & Planning
Board

☒
Lake Advisory
Board

☐
Parks & Recreation
Board

☒
ABC Board

Rationale and qualifications for serving: RENEW TERM

Other volunteer activities in which you are currently involved, including other Boards or Committees:

LAB

Other information you feel might be pertinent, including current or prior occupation or resume:

Signature: Richard Sayles Date: DECEMBER 5 2022
NOVEMBER 20 2023



VOLUNTEER APPLICATION FORM

Name: Sandy LedfordAddress: _____ Lake Lure Resident for 16 yearsHome Phone: _____ Cell Phone: 828-980-7230 Email: Sandy.Ledford@lake lure.comEmployer: Lake Lure Tours Address: 2930 Memorial Hwy Lake Lure NC 28746

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

☐Board of
Adjustment &
Lake Structure
Appeals Board☐Zoning &
Planning Board☒Lake Advisory
Board☐Parks &
Recreation
Board☐

ABC Board

☐Utility
Advisory
Board☐Isothermal
Planning &
Development
Commission
(IPDC)Rationale and qualifications for serving: Employed with Lake Lure Tours for over 18 years, assisting customers with boat permits

Other volunteer activities in which you are currently involved, including other Boards or Committees:

N/A.

Other information you feel might be pertinent, including current or prior occupation or resume:

I've been serving on this board for roughly six years.Signature: Sandy L.Date: 11-28-23



VOLUNTEER APPLICATION FORM

Name: Charlie Nance
Address: 213 N Shore Dr Lake Lure Resident for 3 years
Home Phone: — Cell Phone: 704-929-0424 Email: bethw@nace@gmail.com
Employer: Brights Creek Address: Mill Spring

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board <u>Preference</u>	ABC Board

Rationale and qualifications for serving: I have an extensive history in construction, plumbing, electrical and currently work part time as the Building Engineer at Brights Creek Golf Resort.
Prior to moving to this area, I have owned my own business as a contractor and repairs.

Other volunteer activities in which you are currently involved, including other Boards or Committees:

None at present

Other information you feel might be pertinent, including current or prior occupation or resume:

I served as a Town Commissioner for the Town of Lake Valley - NC for several years prior to moving to Tryon in 2013. I served as the Town Sewer & Water Commissioner.

I would welcome the opportunity to work for the betterment of Lake Lure and serve this beautiful community.

Signature: Charlie Nance Date: 1/30/23

Parks & Recreation Board

PARKS AND RECREATION BOARD
(Three Year Appointment)

List of candidates to be considered to fill five regular positions on the Parks and Recreation Board with terms expiring in 2027.

Candidates currently serving as regular members seeking reappointment:

1. Lawrence Czajkoski
2. Robin Worcester

Candidates not currently serving on the Board seeking appointment:

1. Pat Buede
2. Debbie Warren
3. Dan Gorman
4. Charlie Nance
5. Marcus & Cheryl Daugvila

Name of Candidate for Regular Position Term Expiring: 2027	#1	_____
---	----	-------

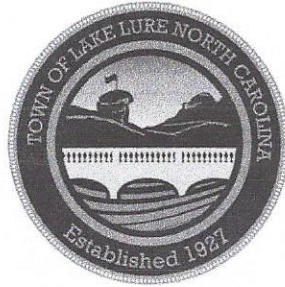
Name of Candidate for Regular Position Term Expiring: 2027	#2	_____
---	----	-------

Name of Candidate for Regular Position Term Expiring: 2027	#3	_____
---	----	-------

Name of Candidate for Regular Position Term Expiring: 2027	#4	_____
---	----	-------

Name of Candidate for Regular Position Term Expiring: 2027	#5	_____
---	----	-------

Signature of Commissioner: Date: February 13, 2024	_____
---	-------

**VOLUNTEER APPLICATION FORM**

Name: Lawrence Czajkowski

Address: 139 Vance Place Lake Lure Resident for 17 years

Home Phone: 828-625-5168 Cell Phone: 828-545-3807 Email: LarryCZ62@bellsouth.net

Employer: SELF Employed Address: _____
Lucas Technology Corp.

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board	ABC Board	Utility Advisory Board	Isothermal Planning & Development Commission (IPDC)

Rationale and qualifications for serving: Current member of TOLL P&R Board.

Participated in and coordinated development of Peace Program,
Buffalo Creek Park and Weed Patch Mt. Trails/Trail Head development and
Management.

Other volunteer activities in which you are currently involved, including other Boards or Committees:

Current volunteer member of TOLL Parks & Recreation
Board (since 2009).

Other information you feel might be pertinent, including current or prior occupation or resume:

I wish to continue my service to Lake Lure participating in
P&R projects and working with other P&R Board members and
TOLL staff to enhance the quality of life and recreation
activities (Trails, Parks, Greenspace) for all LL residents and visitors.

Signature: _____ Date: _____

Lawrence Czajkowski



VOLUNTEER APPLICATION FORM

Name: ROBIN WORCESTER
Address: 102 HUNTINGTON RD, LL, NC Lake Lure Resident for 13 years
Home Phone: 625-5549 Cell Phone: 828-691-2764 Email: ROBIN.WORCESTER@GMAIL.COM
Employer: RETIRED Address: -

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board	ABC Board

Rationale and qualifications for serving: APPOINTED 12/2020, I WISH TO
CONTINUE SERVING ON THIS BOARD.

Other volunteer activities in which you are currently involved, including other Boards or Committees:

SEE ATTACHED.

Other information you feel might be pertinent, including current or prior occupation or resume:

SEE ATTACHED.

Signature: [Signature] Date: 15 JAN 2023

Other volunteer activities in which you are currently involved, including other Boards or Committees:

Trail boss for the BCP Trail since it opened.

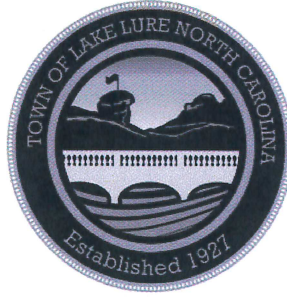
Participate in trail workdays for Lake Lure trails.

Lead a group of volunteers to collect water samples and other data every month from the streams that empty into Lake Lure, In the summer months we also collect deep-water samples, collect oxygen and temperature data and collect samples for e-coli testing on the lake.

Other information you feel might be pertinent, including current or prior occupation or resume:

Geocaching - I maintain a 53-cache series labeled "Smiles for All" which initially displays a smilie face over the lake on a map. Participants need to read a Wikipedia article about Lake Lure to obtain true coordinates for the caches which are scattered around the lake. They must then find each cache and sign logsheets. Not only do they learn something about Lake Lure, they must visit the area.

Also, when BCP Trail opened, there was a concern that a geocache might be placed in the boulder area and endanger green salamander habitat. I placed two caches that overlap the boulder area to prevent any geocaches being placed in the boulder area. I still maintain those geocaches and no one has attempted to place a geocache in the boulder area.



VOLUNTEER APPLICATION FORM

Name: Pat Buede

Address: 2153 Memorial Hwy Lake Lure Resident for 22 years

Home Phone: _____ Cell Phone: 828.388.2144 Email: patbuede537@gmail.com

Employer: _____ Address: _____

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

☐

Board of
Adjustment &
Lake Structure
Appeals Board

☐

Zoning &
Planning Board

☐

Lake Advisory
Board

☒

Parks &
Recreation
Board

☐

ABC Board

☐

Utility
Advisory
Board

☐

Isothermal
Planning &
Development
Commission
(IPDC)

Rationale and qualifications for serving: would like to assist community in the
preservation of LL for its residents
B.S. in Health, PE & recreation

Other volunteer activities in which you are currently involved, including other Boards or Committees:

only prior volunteer activities - town, TDA & Chamber

Other information you feel might be pertinent, including current or prior occupation or resume:

All of us love where we live. My interest lies in
helping permanent residents get more involved with
town projects & activities

Signature: Pat Buede Date: 12.12.23



VOLUNTEER APPLICATION FORM

Name: DEBBIE WARREN

Address: 138 Yacht Island Dr Lake Lure Resident for 3+ years
* Been coming pr for 20+

Home Phone: — Cell Phone: 205/535-0374 Email: dspsbwarren@gmail.com

Employer: Retired Address: —

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

☐Board of
Adjustment &
Lake Structure
Appeals Board☐Zoning &
Planning Board☐Lake Advisory
Board☒Parks &
Recreation
Board☐

ABC Board

☐Utility
Advisory
Board☐Isothermal
Planning &
Development
Commission
(IPDC)Rationale and qualifications for serving: —* see Attached

Other volunteer activities in which you are currently involved, including other Boards or Committees:

CHAIR, LAKE LURE OLYMPIAD BOARD

Other information you feel might be pertinent, including current or prior occupation or resume:

* SEE ATTACHED

Signature: Debbie P Warren Date: 1-16-24

Brief Resume for Town of Lake Lure Volunteer Board Application

Debbie Warren
138 Yacjt Island Dr
Lake Lure, NC
Dspbwarren@gmail.com
205-535-0374

I have lived in Lake Lure full time since June, 2020 but have been coming here regularly since 1998 when my parents retired here . I helped at The Visitor's Center when volunteers manned the place; helped design and produce the Lakefront Lake Homeowners directory when my dad was treasurer; attended newcomer events and attend Fairfield Mtn Chapel when able.

I am currently the Chair of the Lake Lure Olympiad Board which has in its 20 year history distributed over \$ 400,000 .00 to non-profits in the HNG.

Professionally, I spent my 40+ year career in college athletics serving as a coach, teacher and administrator.

- I spent 5 years as a teacher, coach and administrator at Mount Union College in Ohio
- I was the first fulltime woman administrator at the University of Alabama and spent 16 years there as an Assistant Athletic Director working with Olympic sports and supervised the building of a state of the art softball facility
- I built a reputation for trouble shooting, strategic planning and building successful staff teams as well as building new facilities at:
 - Chowan University
 - Hartwick College
 - Marymount University
 - Indiana Tech University
- I received the National Director of Athletics Award in 2019-2020 as well as WHAC Conference Athletic Director of the Year in the same year for my work in building a national powerhouse department with number one ranked teams and above a 3.2 GPA average for over 700 athletes/28 sport teams and over 100 on staff as well as completing the design and construction of a multi million dollar athletic complex converting 9 holes of a purchased golf course into a multipurpose building, soccer/lacrosse field, outdoor track and field facility and a new home for baseball with space for an indoor track facility.

I attend town council meetings regularly. I am interested in the community and the future of this wonderful place and humbly ask for your consideration to serve on the Parks and Rec Board.



VOLUNTEER APPLICATION FORM

Name: Dan Gorman

Address: 241 Washburn Rd. Lake Lure Resident for 2 years

Home Phone: 720-620-6056 Cell Phone: _____ Email: dangorman3@gmail.com

Employer: Self Employed Address: _____
Landscape Designer

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board	ABC Board	Utility Advisory Board	Isothermal Planning & Development Commission (IPDC)

Rationale and qualifications for serving: I want to be involved in our community and I
have substantial experience as a landscape designer that I feel will
effectively inform my service in a board position.

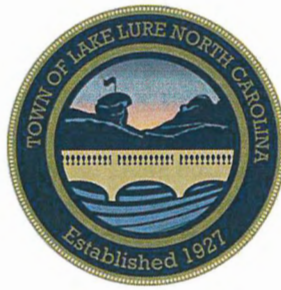
Other volunteer activities in which you are currently involved, including other Boards or Committees:

Lake Lure Flowering Bridge and Habitat for Humanity

Other information you feel might be pertinent, including current or prior occupation or resume:

I'm a lover of well thought out design and budget awareness from the very
beginning of a project. I love the outdoors in general, and our little slice of
WNC beauty specifically. I would love the opportunity to serve and help shape
positive parks and recreation experiences for future visitors and residents.

Signature:  Date: 12.10.2023



VOLUNTEER APPLICATION FORM

Name: Charlie Nance
Address: 213 N Shore Dr Lake Lure Resident for 3 years
Home Phone: — Cell Phone: 704-929-0424 Email: bethw@nanc@gmail.com
Employer: Brights Creek Address: Mill Spring

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board <u>Preference</u>	ABC Board

Rationale and qualifications for serving: I have an extensive history in construction, plumbing, electrical and currently work part time as the Building Engineer at Brights Creek Golf Resort.
Prior to moving to this area, I have owned my own business as a contractor and repairs.

Other volunteer activities in which you are currently involved, including other Boards or Committees:

None at present

Other information you feel might be pertinent, including current or prior occupation or resume:

I served as a Town Commissioner for the Town of Lake Valley - NC for several years prior to moving to Tryon in 2013. I served as the Town Sewer & Water Commissioner.
I would welcome the opportunity to work for the betterment of Lake Lure and serve this beautiful community.

Signature: Charlie Nance Date: 1/30/23



VOLUNTEER APPLICATION FORM

Name: MARIUS & CHERYL DAUGVILA
Address: 180 BLARNEY RD Lake Lure Resident for 2 years
Home Phone: 885195819 Cell Phone: 630.991.3631 Email: MDAUG17@GMAIL.COM
Employer: SELF-RETIRED Address: CHETATOTAL@GMAIL.COM

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

RE: DENN



Board of
Adjustment & Lake
Structure Appeals
Board



Zoning & Planning
Board



Lake Advisory
Board



Parks & Recreation
Board



ABC Board



Utility Advisory
Board

Rationale and qualifications for serving: MOM & EXPERIENCE IN CONSTRUCTION,
CODES, PLANNING & MAINTENANCE BACKGROUND, 2 YEAR
FULL TIME RESIDENT. (RE: CROSSING GUARD DUTY)

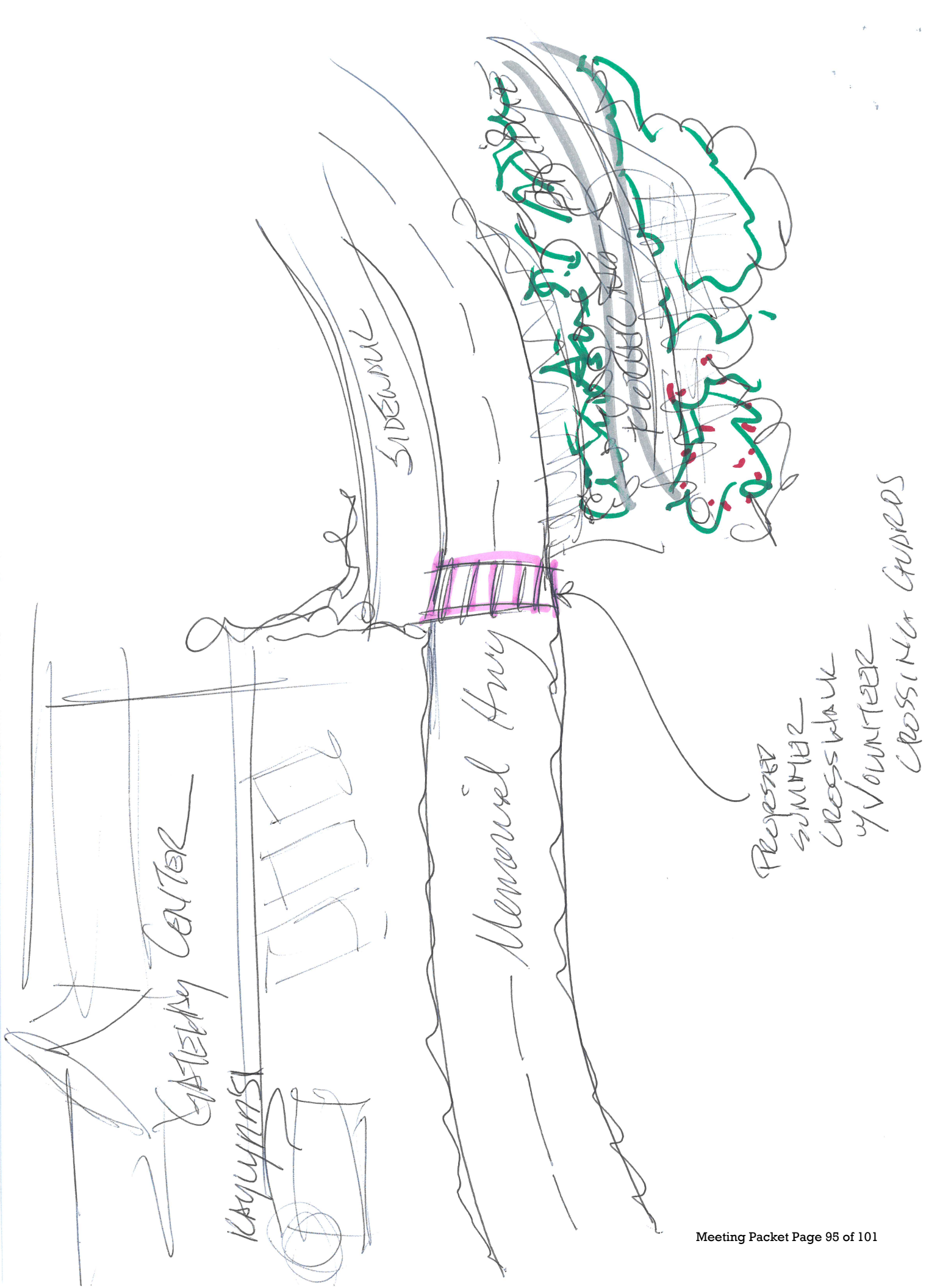
Other volunteer activities in which you are currently involved, including other Boards or Committees:

FLOWERING BRIDGE, EARTH DAY CHAIR, NEIGHBORHOOD WATCH DOG,
VOLUNTEER + VOLUNTEER

Other information you feel might be pertinent, including current or prior occupation or resume:

WE PROPOSE A CROSSWALK FROM THE FLOWERING BRIDGE
TO THE SIDE WALK ON THE OTHER SIDE OF THE BRIDGE.
THIS HELPS TOURISTS GET TO KAYLYNN'S SAFELY

Signature: _____ Date: _____



PROPOSED
SUMMER
CROSSWALK
w/ VOLUNTEER
CROSSING GUARDS

Zoning & Planning Board

ZONING AND PLANNING BOARD
(Three Year Appointment)

List of candidates to be considered to fill one position on the Zoning and Planning Board with term expiring in 2027.

Candidates currently serving on the Board seeking reappointment:

1. Mac Hillabush

Name of Candidate for Position	#1	_____
Term Expiring: 2027		

Signature of Commissioner:	_____
Date: February 13, 2024	



VOLUNTEER APPLICATION FORM

Name: MAC HILLABUSH
Address: 50 OWL HOLLOW RD Lake Lure Resident for 4 years
Home Phone: _____ Cell Phone: 425-941-2503 Email: M.HILLABUSH@CAMPLURECREST.ORG
Employer: CAMP LURE CREST Address: 207 CHARLOTTE DR

PLEASE CHECK THE APPROPRIATE BOX AND INDICATE A PREFERENCE IF CHECKING MORE THAN ONE

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Board of Adjustment & Lake Structure Appeals Board	Zoning & Planning Board	Lake Advisory Board	Parks & Recreation Board	ABC Board

Rationale and qualifications for serving: I HAVE OWNED 2 DIFFERENT BUSINESSES
IN CHIMNEY ROCK & LAKE LURE I CURRENTLY WORK AS
THE MAINTENANCE & FACILITY DIRECTOR AT CAMP LURE CREST.
I HAVE LOTS OF EXPERIENCE IN BUILDING & PROPERTY MANAGEMENT.

Other volunteer activities in which you are currently involved, including other Boards or Committees:

NONE AT THIS TIME

Other information you feel might be pertinent, including current or prior occupation or resume:

MOTEL OWNER → CHIMNEY ROCK

HANDY MAN → LAKE LURE

MAINTENANCE & FACILITY DIRECTOR → LAKE LURE
CAMP LURE CREST.

I GC A LOT OF
PROJECTS & BUILDS &
REMODELS AT CAMP
LURE CREST.

Signature: Mac Hillabush

Date: 12-19-23

**LAKE LURE TOWN COUNCIL
AGENDA ITEM REQUEST FORM
Meeting Date: January 24, 2024**

SUBJECT: Project Manager Updates

AGENDA INFORMATION:

Item Number: IX
Department: Project Management
Contact: Michael Dydula, Project Manager
Presenter: Michael Dydula, Project Manager

BRIEF SUMMARY:

Project Manager Mike Dydula will provide Council with an update in regard to ongoing major projects.

**LAKE LURE TOWN COUNCIL
AGENDA ITEM REQUEST FORM
Meeting Date: January 24, 2024**

SUBJECT: Town Manager Updates

AGENDA INFORMATION:

Item Number: X
Department: Administration
Contact: Hank Perkins, Town Manager
Presenter: Hank Perkins, Town Manager

BRIEF SUMMARY:

Town Manager Hank Perkins will provide Council with any updates that are not included on the meeting agenda. Council will also have the opportunity to ask any questions.

XI

ADJOURNMENT