

**Town of Lake Lure - Capital Improvement Plan**

<u>Department</u>	<u>Project Name</u>	<u>Description</u>	<u>Total Amount</u>	<u>Source</u>	<u>FY 11/12</u>	<u>FY 12/13</u>	<u>FY 13/14</u>	<u>FY 14/15</u>	<u>FY 15/16</u>	<u>FY 16/17</u>	<u>FY 17/18</u>	<u>FY 18/19</u>
<b>CAPITAL IMPROVEMENTS &amp; PROJECTS</b>			<b>COMPLETE</b>									
<b>General Fund</b>												
Administration	Professional Services - Asset Management Program	Create inventory of all town assets (buildings, vehicles, roads, etc.): condition, useful life remaining, rehab and replacement cost estimates that will improve the capital improvement planning process.	\$20,000	Budget + Grant		\$20,000						
Administration	Professional Services - Performance Measurement Program	Create a program for measuring the outcomes of local government services at the department and employee level. Determine performance measures, benchmarks and targets. Implement data collection processes and create a dashboard for management, Town council and the public. Use individual and department metrics and targets to set incentive bonuses.	\$10,000	Budget								
Administration	Personnel Policy Review and Update	Review of our 140-page personnel policy for compliance with legal changes at federal and state level and for clarity and best practices.	\$4,000	Budget			\$2,500					
Administration	Salary Study	Periodic survey of town employee roles, salaries & benefits. Compares to benchmarks in similar jobs in other municipalities. Makes recommendations for our salary ranges to remain competitive.	\$4,000	Budget				in house \$0				
Administration	Operational Efficiency Study	GreyRock Accounting	\$6,000	Budget					\$6,000			
Administration	Reception Window Enlargement	Expand receptionist window to accommodate two customers at a time (reduces queuing during peak periods)	\$8,000	Budget								
Administration	Town Hall Building Refurbishment / Major	Roof replaced in 11/12. - fluorescent lighting conversion to LED? - HVAC replacement?	TBD		\$16,000					\$15,000	\$15,000	\$15,000
Community Development	Gateway Property (Memorial Hwy & Boys Camp Road)	Land acquisition (\$243,000) Demolition, improvement Planning	\$275,000	Fund Balance			\$260,022					
Community Development	Town Center Master Plan - Phase I Initial concept & traffic routing	Engage firms to lead the community in creating a Town Center Plan with market analysis / economic feasibility / transportation routing / parks & greenways / live & work units / maps to generate visual interest in project.	\$36,000	Budget	\$36,000							
Community Development	Town Center Master Plan Market Analysis & Branding Development	Economic market study of existing retail and services and the potential for added retail/services in the Lake Lure town center. Will be used to create the business case for investment in the town center (to attract developers.) This project also has a branding exercise to help the town develop and identity and marketing approach that supports the desired economic development and town center growth. Project will be cost shared 90%/10% with Chimney Rock Village.	\$15,500	Budget		\$15,500						
Community Development	Town Center Plan - Phase 2 Refined concept designs	Refined drawings, 3-d modeling, implementation strategies (e.g., streetscapes, parks, buildings)	\$65,000	Budget								
Community Development	Town Center Master Plan Streetscape Plan	Depicts the physical makeup of a street, including street furniture (benches, fountains, trash receptacles, etc.), building frontages, location of bikeways & pedestrian ways, landscaping (including trees and other plantings) lighting, signs, and public spaces.	\$15,000	Budget						\$15,000		

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Community Development	Town Center Master Plan - Other Detailed Designs		TBD								\$15,000	??
Community Development	Town Center - Implementation	Direct investment in town center improvements (as a grant match, public/private partnership, or improvement of town facilities). Gateway monumentation, streetscapes, public areas, etc. - Extend walkway to LL Post Office: \$160,000 - Extend walkway to ABC store: \$210,000	TBD							\$160,000	\$210,000	??
Community Development	NC-9 Small Area Plan	Detailed plan for the development of the area around Ingles and the NC-9 / Memorial Hwy Intersection. Desired land uses, needed infrastructure, development strategy, etc.	\$30,000	Budget								
Community Development	Firing Range Assessment	Environmental assessment and remediation plan Complete and approved by State of NC	\$19,000	Budget	\$19,000							
Community Development	Firing Range Remediation	Remove lead and soil to make the site developable (per approved plan). STRATEGY: transfer land to school to facilitate a grant award for them to do the cleanup	\$200,000	Budget						\$200,000		
Community Development	Business District Wi-Fi	ARC grant awarded to Lake Lure, Chimney Rock and Saluda. PANGAEA will install and operate free public wi-fi along the Memorial Highway corridor from the ABC store to the west end of the Village. Local match required.	\$3,000	Grant					\$3,000			
Community Development	Walkway extension to Chimney Rock	<i>See Parks &amp; Recreation Section</i>										
Community Development	Streetlight replacement program	To shift from leased lights to owned lights To shift from incandescent to LED (less electricity) To standardize on a lamp design throughout town	TBD							Finance to develop a plan	??	??
Community Development	Dilapidated structures - demolition costs	Reimbursed through property tax liens	TBD	Budget	\$7,500		\$18,000	\$7,200	Not budgeted - taken out of fund balance as nee Lien repayments will replenish fund balance.			
Community Development	Inspections/Enforcement Vehicle	Purchased used Subaru 4WD @150K miles	\$6,000	Budget (sale of assets)		\$6,500						
Police	Vehicle replacements	10 patrol cars (replace at 120K-150K miles) 2 command cars (replace at 140K - 160K) 2 reserve/spares \$29,000 per vehicle 3-year loan payments for 2 vehicles per year	\$300,000	Loan (3 yr)		\$27,155	\$61,530	\$34,961	\$35,000	\$72,000	\$74,000	\$76,000
Police	Contribution to Vehicle Replacement Fund	In lieu of a vehicle purchase				\$19,859						
Police	In-car video camera systems & Radar Units	Add or replace 1 each year	\$56,351	Budget	\$13,960	\$4,910	\$5,000	\$5,231	\$5,500	\$7,000	\$7,250	\$7,500
Police	Police patrol boat refurb/replace	Replace engines. Replace boat.	\$60,000	Loan								
Fire	New Fire Engine	Strategy is to maintain 3 engines (0-10years, 11-20 years, 21-30years). Buy replacement every 10 years with 10-year loan. We will purchase a new first-out engine and move our current 22-year old truck to 3rd-out status.	\$450,000	Loan (10 yr)		\$425,000						
Fire	New Brush/Medical/Rescue Truck	Add a new multi-purpose truck and utilize current, sub-standard brush trucks as supplemental equipment haulers.	\$60,000	Grant plus capital reserve			\$60,827					
Fire	Laptops - fire dispatch/info in apparatus	Technology purchase with Facebook Grant	\$10,000	Grant		\$10,000						

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Fire	Parking lot repaving	Front and back	\$30,000	Cap. Impr. Fund					See Streets section			
Fire	Building Addition - sleeping quarters	Add a 2-bedroom and bath living quarters to better better accommodate the needs of firefighters on 24-hour shifts. \$2500 is for construction drawings.	\$2,500	Budget						\$2,500	\$95,000	
Fire	Vehicle replacements	Two: Fire Chief & Asst chief at 120K miles	\$50,000	Loan					\$20,000	\$10,272	\$10,272	\$10,272
Fire	Fire Boat refurb/replace	Replace engines / pumps. Replace boat.	\$100,000	Budget						\$25,000		
Fire	Building refurb/replace	According to asset management plan	TBD									
Public Works - Streets	Street Improvements	27 miles of roads. Improvements funded by Powell Bill revenues. Need a streets inventory, assessment and improvement plan. Currently, patching needs are identified twice a year by Jerry Gosda.	\$366,175	Budget (Powell Bill funds)	\$65,000	\$67,000	\$23,000	\$74,175	\$69,000	\$68,000	\$67,000	\$66,000
Public Works - Streets	Parking lot repaving	Municipal Center/Marina, ABC Store, Arcade Area, Golf Course, Fire Station, Lake Ops	\$447,000						\$85,000	\$50,000	\$50,000	\$50,000
Public Works - Streets	Repairs to slope failures on Ridge Road, Snug Harbor		\$100,000					\$100,000				
Public Works - Streets	Repairs to Boys Camp Road	List of repairs from assessment report	\$190,000						\$190,000			
Public Works - Streets	Yacht Island Bridge Rehab		TBD									
Public Works - Streets	Tryon Bay Circle Bridge Rehab	Latest inspection report identified needed decking repairs. Can pay from Powell Bill Funds	\$2,500	Budget		\$2,500						
Public Works - Streets	Boys Camp Road Bridge Rehab		TBD									
Public Works - Streets	Flowering Bridge Rehab	According to bridge preservation plans, Flowering Bridge construction, future needs. The bridge operation will replenish the preservation fund (\$120K) when they become self-sustaining.	\$60,000	Bridge Fund	\$20,000	\$20,000	\$10,000					
Public Works - Maintenance	Mower Equipment Replacement	Combination of surplus sale and purchase of tractor and mowers for streets, ditches, traffic islands	\$30,000	Budget (Powell Bill funds)			\$45,000					
Public Works - Maintenance	Daily Work Vehicle replacement	Replace 3 work vehicles	\$90,000	Loan					\$30,000	\$30,000	\$30,000	
Public Works - Maintenance	Snow removal equipment - refurb/replace	4WD Dump Truck w/Snow Removal Package (plow is separate - use Powell Bill funds). Will dispose of old, smaller snow plow truck and Tony's primary work truck.	\$48,000	Loan				\$46,496				
Public Works - Maintenance	Replace dump truck	F750 Dump Truck	\$76,000	Loan						\$76,000		
Public Works - Maintenance	Heavy equipment refurb/replacement	in accordance with asset management plan	TBD									
Public Works - Maintenance	Generator replacements	5 generators	TBD									
Public Works - Buildings	Visitor Center Building refurb / replace	TDA to fund the interior and exterior renovation in 2013	\$0	County TDA								
Public Works - Buildings	Public Works Building Relocation (Replacement)	Move to Hwy 9 Regional Center. Funded by sale of commercial property owned by town.	\$500,000	Property Sale								
Garbage / Recycling	Debris Fill Area / Convenience Center at Island Creek: design and implementation.	Create a benecial landfill area for inert debris (wood, paving, trees, etc.) to replace the one lost at the school site. Also create a processing site for mulch/leaves and a convenience drop-off center for household garbage & recycling. Used by public works dept. and citizens. Fenced and monitored.	TBD							??	??	??

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Golf Course	Building refurb/replacement <i>Note: operating budget includes \$5,000 annually for building maintenance &amp; repairs</i>	Log clubhouse, 2 metal storage buildings, 1 wooden storage building, 2 shelters, 1 pumphouse, 1 empty pumphouse	TBD						??	??	??	??
Golf Course	Replace septic system and add grease trap	Replace existing septic system and add a grease trap to support food service.	\$16,000	Budget								
Golf Course	Remodel interior of clubhouse	Remodel interior per plan (Wulff Architecture) for a snack bar area, office area and shower for golfers	\$5,000	Budget					M&R in operating budget			
Golf Course	Replace clubhouse carpet	Replace clubhouse carpet	\$3,500	Budget								
Golf Course	Replace wood deck on front porch	Replace wood deck on front porch and repair damaged floor joists	\$2,000	Budget								
Golf Course	Replace roof on clubhouse	Replace with green metal	\$15,000	Budget								
Golf Course	Replace pavement in parking lot	Asphalt in three areas: - 4700 sq. ft. - 1500 sq. ft. - 840 sq. ft.	\$21,000	Budget					See streets section above			
Lake Operations	Marina Replacement	10 year payback period, then positive cashflow to town (\$80K+ annually) from slip rentals	\$640,000	Loan	\$640,000							
Lake Operations	Lake Instrumentation - Phase 1	Ph 1: Adding upstream and downstream river sensors to track the volume of water entering/exiting the lake. Engineering to design the end-state lake instrumentation system (components, phases and costs) and stream cross-section analysis.	\$20,000	Budget	\$10,000	\$10,000						
Lake Operations	Lake Instrumentation - Phase 2	Ph 2: add rain gauges, new data logger, water temp, dissolved oxygen, build a website dashboard for the real-time metrics and history graphs.	\$20,000	Budget						\$20,000		
Lake Operations	Lake Operations Office - Exterior Renovation	Interior completed in 2010/11. Update exterior to match stucco and orange roof of Town Center architecture.	\$50,000	Budget						incl. in dam overlook project (hydro)		
Lake Operations	Docks - Lake Operations Office	Floating docks with metal roof, open or closed sides, 5 slips (fireboat, service boat, 2 for lake operations, visitors.) Fund this with proceeds from the sale of the old EMS boathouse and lot.	\$100,000	Budget (sale of assets)					Funded from sale of old boathouse			
Lake Operations	Old EMS boathouse	Sell (net \$100K?) ...or refurbish/replace (\$114,000)	\$114,000									
Lake Operations	ABC Boathouse refurbishment/replacement	Lease out...or update the boathouse near the ABC store	TBD									
Lake Operations	Boat refurb/replacement	3 boats - replace motors and/or boats as necessary - 2012/13 - replace 90hp outboard on service boat (\$9,000)	TBD	Asset Sale/Trade		\$9,000						



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Parks & Rec - Beach & Marina	Replace Boardwalk: Option A	Option A: aluminum decking and railings over existing piers. Raise the portion along the beach and add stacked block retaining wall.	\$650,000	Loan						\$650,000		
Parks & Rec - Beach & Marina	Replace Boardwalk: Option B	Option A plus removal of existing piers and addition of stacked block seawall into the lake to create a pulloff parking area between the boardwalk and highway.	\$900,000	Loan						\$900,000		
Parks & Rec - Beach & Marina	Beach building refurb/replacement	According to asset management plan. Large beach house, small beach house, marina office	TBD							TBD		
Parks & Rec - Beach & Marina	Beach building refurb/replacement	Beach House #1 (by Pool Creek) Resurface pavilion concrete slab (approx. 3,000 sq. ft.)	\$15,000								\$15,000	
Parks & Rec - Beach & Marina	Beach building refurb/replacement	Beach House #1: Renovate two public bathrooms located outside of gates	\$5,000								\$5,000	
Technology	Desktop and Laptop computer upgrades/replacements	45 in service Expected 6-year life Replace 3-4 per year	\$40,000	Budget	\$6,000	\$3,000	\$3,000	\$2,000	\$5,000			
Technology	Police MDT notebook replacements	Replace at end of usable life. 12 in service	\$15,000	Grant			\$15,000					
Technology	Server upgrades/replacements	Police PAK server (\$1200 done in 2011) New firewall device (\$2,500) Antivirus software upgrade (\$2,500) Barracuda Spam email filter service renewal (\$1,000) Town Hall Application Server (\$5,000) GIS server (\$4,000)	\$14,931		\$1,200	\$3,500	\$5,000	\$5,231	Eliminating onsite servers: rent from the cloud			
Technology	Software - Office Suite	Currently running MS Office 2003 (unsupported) and some WordPerfect - Option A: MS Office 2010 (\$21,000 for all upgrades) - Option B: Cloud-hosted Office (\$4900/year) - Option C: OpenOffice.org (free)	\$21,000	Budget					Switched to cloud-hosted service Software versions now stay current without having to purchase up			
Technology	Printer/Scanner/Coper upgrades/replacements	14 in service Replace 1 every year	\$1,500		\$500				\$500	\$500	\$500	\$500
Technology	Replacement of council audio and video capture and display system	Modern technology, more dependability. Utilize flat screens for audience and commissioners to see presentations with laptop inputs.	TBD						\$20,000			
Technology	Indoor cell phone booster @ Town Hall	Covers all carriers except Nextel	\$2,500						\$1,500			
Technology	Public wi-fi on Memorial Highway in Town Center	Local match for ARC grant to install free public wi-fi in the business corridor. CRV will do the same.	\$3,000	Grant					\$3,000			
Technology	Software - new website (conversion) and web content management system	Department heads directly manage their web content, consistent look/feel across site	\$5,000	Budget	\$5,000							
Technology	Software - website enhancements	Further improvements to usability of town website	\$5,000				\$2,200					
Technology	Software - Municipal Services (website services)	eGov Link provides: - service request / job ticketing - online community calendar - online document storage/searching - other features	\$2,000		\$2,000							
Technology	Software - electronic payments for water/sewer billing	Billing notifications by email. ACH draft setup for bills.	\$2,000		\$2,000							

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Technology	Replace the Boat Permit Database	Current MS-Access database written in 2002, developed by local volunteers and is past it's supported life. A new database will be hosted by a professional shop and available via web browser. We can add the ability for boat owners to initiate their permit renewals online and to received stickers by mail. Without a database, permits are issued/tracked by hand without multi-year reporting of usage and trands.	\$15,000	Budget (boat permit fees)						\$15,000		
General Fund Total			\$10,982,487		\$1,029,690	\$710,410	\$701,593	\$407,028	\$773,500	\$3,091,272	\$1,099,022	\$625,272

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<b>Water &amp; Sewer Fund</b>												
Water	Relining the Chalet Club Reservoir	Reline the old concrete tank to repair and prevent leaks	\$25,000	Budget	\$25,000							
Water	Luremont Water Improvements - 1	Replace all galvanized pipe in area	\$65,000	loan/grant and capital reserves				\$44,056				
Water	Luremont Water Improvements - 2	Connect Asa Gray Dr. with Vess Well (Bottomless Pools) - 8" DIP	\$100,000	loan/grant and capital reserves				\$100,000				
Water	Luremont Water Improvements - 3	Connect Mistletoe Park Ln. with Sidney Lanier	\$6,000	Budget						\$6,000		
Water	Luremont Water Improvements - 4	Replace/relocate Chalet Club reservoir	TBD									
Water	Luremont Water Improvements - 5	Upgrade Washburn Road (upper) to 6"	TBD									
Water	Luremont Water Improvements - 6	Upgrade Olds & Burbank roads to 6"	TBD									
Water	Luremont Water Improvements - 7	Upgrade Sidney Lanier to 6"	TBD									
Water	Firefly Cove Road Improvements	Grade & gravel upper road to reservoir (w/ water mgmt)	TBD									
Water	Firefly Cove - connecting to existing system	Take existing wells off line (uranium issues) and add pumps needed to equalize pressure in the systems and to pump water up to the reservoir on the Ridge. Adds storage capacity to the Town's system.	\$160,000								\$160,000	
Water	Add outlets for portable generator	On strategic wells, gas pumps and buildings, add outlets to facilitate a quick connection of the portable generator. - Woody Well, Powers Well - \$80K reservoir (propane generator?) - Ingles & Lakeview gas pumps	\$3,000						\$3,000			
Water	Add second portable generator	In the event of an extended, townwide power outage, this would give us extra capacity to run well pumps, gas pumps or supply buildings with power. We have 5 fixed generators at various locations and one portable.	\$40,000							\$40,000		
Water	Water System Extension - Boys Camp Road	Extend to 2,000 feet to Don Kurant's house	TBD									
Water	Water System Extension - to LLFD & Lake Ops	Extend water line from Larkin's to the dam	TBD									
Water	Remote meter reading	Replacement radios	\$45,000									
Water	Pump station refurb/replacements		TBD									
Water	Reservoir Refurbishment / Replacement	Five Reservoirs: Island Creek Tower, Highlands, Chalet Club, Washburn Road, Firefly Cove	TBD									
Water	Daily Work Vehicle replacement	1 truck of 2 (three year payments on \$30,000)	\$31,000							\$31,000		
Water	Heavy equipment refurb / replacement	in accordance with asset management plan	TBD									
<b>Sewer</b>												
Sewer	Overhaul Sewer Ordinance	Rework the sewer ordinance, policies and rates with input from engineers, staff and council	\$13,000	Budget			\$13,000					
Sewer - collection	Replace sewer line from Visitor Center to manhole at highway	Sewer line is undersized and frequently clogged. Replace with 6" line to prepare for expanded bathroom capacity.	\$16,768	Budget		\$16,768						
Sewer - collection	Install flush valves in three lakeside manholes	These flush valves will enable the use of lake water and gravity to annually flush the collection lines under the lake.	TBD	Budget				TBD				
Sewer - collection	Install flow meter between the Chimney Rock and Lake Lure zones of the collection system.	A flow meter will enable monitoring of flow coming from all connections in Chimney Rock in order to identify potential inflow/infiltration issues.	TBD	Budget					TBD			

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Sewer - collection	Sewer Expansion - Buffalo Shoals Rd/Dam Marina	Add manhole, force mains & gravity sewer from Point of View / Dam Marina down Buffalo Shoals Rd to connect to system behind dam.	\$150,000	Budget + Private \$\$						\$150,000		
Sewer - collection	Manhole extensions - from lake to road	Add manholes on roads above shoreline manholes, facilitating easier connections for neighboring properties. Strategy: have neighborhood sewer associations fund these	TBD									
Sewer - treatment	Plant upgrades							\$21,782				
Sewer - treatment	Plant Upgrade: permanent structure for geo-tubes	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$62,500	Loan/Grant					\$62,500			
Sewer - treatment	Plant Upgrade: Air stripping / aeration	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$100,000	Loan/Grant					\$100,000			
Sewer - treatment	Plant Upgrade: Plant piping	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$62,500	Loan/Grant					\$62,500			
Sewer - treatment	Plant Upgrade: 2nd Clarifier	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$950,000	Loan/Grant							\$950,000	
Sewer - treatment	Plant Upgrade: New digester (tall tank)	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$260,000	Loan/Grant							\$260,000	
Sewer - treatment	Plant Upgrade: Transfer Pump (RAS) and Plant Piping for FY 13/14 projects	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$96,000	Loan/Grant							\$96,000	
Sewer - treatment	Plant Upgrade: New CL2 Chamber	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$36,000	Loan/Grant							\$36,000	
Sewer - treatment	Plant Upgrade: Plant piping for FY 14/15 projects	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$38,000	Loan/Grant							\$38,000	
Sewer - treatment	Plant Upgrade: New Influent Static Screen(s)	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$110,000	Loan/Grant								\$110,000
Sewer - treatment	Plant Upgrade: Settling Tank / Aeration Tank Improvements	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$475,000	Loan/Grant								\$475,000
Sewer - treatment	Plant Upgrade: Plant Piping for FY 15/16 Improvements	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$78,000	Loan/Grant								\$78,000
Sewer - treatment	Plant Upgrade: New Air Blowers	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$225,000	Loan/Grant								
Sewer - treatment	Plant Upgrade: New Air Piping	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$55,000	Loan/Grant								
Sewer - treatment	Plant Upgrade: New Floor in Chemical Room	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$25,000	Loan/Grant								
Sewer - treatment	Plant Upgrade: Disk Filter - Plant Polish Unit	Recommended in 2010 Comprehensive Sewer Study and 2012/13 DENR Consent Order (pilot testing)	\$178,000	Loan/Grant								
Sewer - treatment	Sewer Interconnect to Rutherfordton (Greenline): STUDY	Participation in grant-funded county study on the feasibility of a phased regionalization of the sewer systems. (\$17,500 from Rural Center, \$7,505 from budget)	\$7,505	Budget + grant			\$25,005					

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Sewer - treatment	Sewer Interconnect to Rutherfordton (Greenline): IMPLEMENTATION	Build 18-mile interconnect with 3 pump stations. Seek to find a lead agency for funding and management (like the Broad River Water Authority) to create a county sewer district to consolidate the 4-5 treatment plants in the county. Total project cost of the Lake Lure leg is estimated at \$8-\$10 million.  Currently working on a grant-funded study to finalize costs and proposed sewer rates to Rutherfordton or Spindale.	\$10,000,000	Loan					??	??	??	??
Water & Sewer Fund Total			\$13,388,273		\$0	\$16,768	\$38,005	\$165,838	\$228,000	\$227,000	\$1,540,000	\$663,000

**Town of Lake Lure - Capital Improvement Plan**

<u>Department</u>	<u>Project Name</u>	<u>Description</u>	<u>Total Amount</u>	<u>Source</u>	<u>FY 11/12</u>	<u>FY 12/13</u>	<u>FY 13/14</u>	<u>FY 14/15</u>	<u>FY 15/16</u>	<u>FY 16/17</u>	<u>FY 17/18</u>	<u>FY 18/19</u>
Hydroelectric	Silt Removal: Contribution to Emergency Silt Fund	\$50,000 from Lake Operations (boat permits) \$50,000 from Hydroelectric generation	\$500,000 over 10 years			\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Hydroelectric	Replacement fencing at dam		\$17,000	Budget	\$10,000		\$7,000					
Hydroelectric	Dam Repairs / Improvement	See multi-year project list	\$50,000	Budget	\$50,000	\$50,000	\$50,000		see below	see below	see below	see below
Hydroelectric	Road repairs to access road		\$200,000	Budget				\$190,347				
Hydroelectric	Replace bearings on large generator	Running hot and tripping off. Replace bearings and add temperature sensors.	\$80,000	Budget			\$80,000					
Hydroelectric	Replace flood gate chains		\$50,000					\$63,653				
Hydroelectric	Electrical Improvements	New service to pump station, generator outlet at pump, backup generator for flood gates/can	\$103,828					\$103,828				
Hydroelectric	Rehab both butterfly valves		\$25,000						\$25,000			
Hydroelectric	Motorize the overhead crane		\$20,000							\$20,000		
Hydroelectric	Reinforce floor of power house	This is to accommodate electric man lift equipment that is required to make repairs and paint inside of power house.	TBD							TBD		
Hydroelectric	Calibrate control panel relays		\$10,000						\$10,000			
Hydroelectric	Basement re-wiring & lighting		\$10,000						\$10,000			
Hydroelectric	Recable the penstock intake seal canister		\$50,000							\$50,000		
Hydroelectric	Paint inside of intake seal canister		\$6,000							\$6,000		
Hydroelectric	Paint backside of floodgates		\$15,000							\$15,000		
Hydroelectric	Inspect and adjust wicket gates on both units		\$15,000									
Hydroelectric	Paint walls and address interior roof		\$20,000								\$20,000	
Hydroelectric	Clean out tail race		\$10,000							\$10,000		
Hydroelectric	Replace bearings on small generator		\$25,000						\$25,000			
Hydroelectric	Rehab the penstock in power house	Inspection of metal plates, welding repairs/augmentation	TBD							TBD		
Hydroelectric	Correct the voltage sag issue		\$150,000							\$150,000		
Hydroelectric	Upgrade of Emergency Sirens	Federally-mandated conversion from wide-band to narrow-band	\$6,325	Budget		\$8,825						
Hydroelectric	Dam Inspection: detailed visual inspection by dam engineer	Last done in 2006, recommended every 5 years, required by DENR	\$9,000	Budget					\$10,000			
Hydroelectric	Dam Inspection: Concrete coring and lab testing, seismic evaluation	Rough estimate by Schabel Engineering	\$60,000 to \$80,000	Budget						\$70,000		
	Dam Inspection: structural stability analysis using the finite element method	Rough estimate by Schabel Engineering	\$40,000 to \$50,000	Budget							\$45,000	
	Dam Inspection: Preliminary evaluation of alternatives for rehabilitation and/or replacement	Rough estimate by Schabel Engineering. Includes recommendations and cost estimates to address deficiencies identified during the previous evaluation steps.	\$25,000 to \$30,000	Budget								\$25,000
Hydroelectric	Dam Safety/Debris Barrier - Engineering & Replacement		\$10,000	Budget			\$9,465					
Hydroelectric	Add Automated Controls to Generators	Improves startup and shutdown, safety. Provides additional instrumentation of operating conditions, which will be accessible via secure website. May resolve voltage sag issue with Duke Energy	\$100,000	Budget						\$100,000		

**Town of Lake Lure - Capital Improvement Plan**

<u>Department</u>	<u>Project Name</u>	<u>Description</u>	<u>Total Amount</u>	<u>Source</u>	<u>FY 11/12</u>	<u>FY 12/13</u>	<u>FY 13/14</u>	<u>FY 14/15</u>	<u>FY 15/16</u>	<u>FY 16/17</u>	<u>FY 17/18</u>	<u>FY 18/19</u>
Hydroelectric	Dam - Paint all metal surfaces	lift gate structures, intake can structure - Need cost estimate	\$20,000	Budget		\$15,000						
Hydroelectric	Dam - Replace street lights	Replace modern globes with more classic fixture	\$25,000	Budget				\$20,000				
Hydroelectric	Dam - Paint bridge		Need Estimate	Budget								
Hydroelectric	Dam - concrete refurbishment & sealing	- repair damage to horizontal surfaces at top of bay arches - extend height of 1 arch to prevent flooding of hydro plant - seal cracks in upper portions of bays	Need Estimate	Budget					??	??		
Hydroelectric	Dam Overlook Park	parking area, pavilion, overlook, entry columns, landscaping (plus \$50,000 in lake operations CIP for building exterior renovation)	\$250,000	Grant + budget						\$250,000		
Hydroelectric Fund Total			\$1,277,153		\$60,000	\$123,825	\$196,465	\$427,828	\$130,000	\$721,000	\$115,000	\$75,000

**Total of all Capital Improvements (All Funds)**

<b>\$25,647,913</b>	<b>\$1,089,690</b>	<b>\$851,003</b>	<b>\$936,063</b>	<b>\$1,000,693</b>	<b>\$1,131,500</b>	<b>\$4,039,272</b>	<b>\$2,754,022</b>	<b>\$1,363,272</b>
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General Fund Budget  
Water-Sewer Fund Budget  
Hydroelectric Fund Budget

\$3,952,054	\$4,364,540	\$3,991,604	\$4,093,277
\$612,809	\$651,347	\$723,418	\$699,262
\$212,574	\$209,211	\$373,043	\$346,513

**Total Budget**

<b>\$4,777,437</b>	<b>\$5,225,098</b>	<b>\$5,088,065</b>	<b>\$5,139,052</b>
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**Capital Improvments as % of Total Budget**

23%	16%	18%	19%
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