



REGULAR MEETING OF THE VILLAGE OF CLEMMONS COUNCIL January 11, 2021

The Village of Clemmons Council met on Monday, January 11, 2021, at 6 p.m. The meeting was held at the Village Hall, Clemmons, North Carolina. The following members were present: Mayor Wait, Council Members Barson (remote via Zoom), Binkley, Cameron, Rogers and Wrights. Attorney Elliot Fus was also present.

Call to Order & Pledge of Allegiance

Mayor Wait called the meeting to order at 6:05 p.m. and led the Pledge of Allegiance.

Public Comments

There were no citizens in attendance. There were no individuals that spoke during public comments.

Approval of the Minutes

Council Member Cameron moved to approve the minutes of the December 14, 2020 regular meeting as presented. The motion was seconded by Council Member Wrights and unanimously approved.

Approval of the Agenda

Mayor Wait advised of the following changes to the agenda:

Item VI.B. Stormwater Cost-Share Program – moved to next meeting.

Item VI.G. Stormwater Engineer's Report – moved to next meeting.

Item VI.D.4. RFP Discussion – added under Manager's Report.

Council Member Cameron moved to approve the agenda as amended. The motion was seconded by Council Member Rogers and unanimously approved.

Announcements

Mayor Wait announced the Village Offices will be closed Monday, January 18, 2021 in observance of Martin Luther King, Jr. Day (trash collection will be on normal schedule).

Thomas F. Shook, Jr. will be turning 100 years old on Friday, January 15. Mayor Wait will be sending a letter recognizing this milestone. He announced his service to our country as he was in the US Navy and served during Pearl Harbor. Council Member Cameron advised his family (Betty and Kurt Telford) has arranged for him to be sitting at the end of his driveway (Fair Oaks) on Saturday, January 16 from 2:00-3:30pm for people to drive by and congratulate and wish him a Happy Birthday.

Business – Action Items

- A. *Call for Public Hearing - Request of the Village of Clemmons from County RS40 to Clemmons RM-18-S for the annexed property of Parr Investments and Hendrix Commercial Industrial Enterprises, Inc.; property is located at 1930 Lewisville-*

Clemmons Road, and is ±38.48 acres (Annexation Ordinance 2020-A-01 – Lake at Belmont).

Council Member Rogers moved to call for public hearing on Request of the Village of Clemmons from County RS40 to Clemmons RM-18-S for the annexed property of Parr Investments and Hendrix Commercial Industrial Enterprises, Inc.; property is located at 1930 Lewisville-Clemmons Road, and is ±38.48 acres (Annexation Ordinance 2020-A-01 – Lake at Belmont) on Monday, January 25, 2021 at the Regular Village Council Meeting. The motion was seconded by Council Member Cameron and unanimously approved.

- B. Stormwater Cost-Share Program – moved to next meeting.

Business – Review and Items for Future Action

- C. Marketing & Communications Director's Report – There will be a Valentine's Pop-up Farmer's Market on February 13, 2021 from noon-3:00pm at Jerry Long YMCA.
- D. Manager's Report.
1. Financial Summary Report for November 2020 – report was presented.
 2. 2021 Retreat Date Considerations – Manager Buffkin requested Council's input on possible dates or a timeframe to hold their spring retreat.

Council consensus was to direct Staff to send out potential dates (toward end of March) for Spring Retreat with PTRC facilitating

3. Bulk Pickup and E-Recycle Date Considerations – Manager Buffkin advised Council that we are contracted to perform the bulk pickup the last two weeks in March. E-Recycle has been delayed to date due to the pandemic but a tentative date will be scheduled.
4. RFP Discussion – Council Member Rogers presented a RFP draft and requested it be sent out in order to secure proposals for Council's consideration for VOIP one-source solution services (attached hereto as Exhibit A and incorporated as a part of the minutes).

Council consensus was to direct Staff to send out RFP for VOIP one-source solution on Tuesday, January 12, 2021 and present responses for Council discussion at February 8, 2021 meeting.

- E. Attorney's Report – Attorney Fus advised Council that in the billboard appeal case, the court ruled in our favor and an order has been entered by the Superior Court affirming the Zoning Board of Adjustment decision. The petitioner has until January 22, 2021 to file any further notice of appeal to the NC Court of Appeals. He is continuing to push to get the rights-of-way finalized for the Watts property (Wells Fargo) for the Market Center Drive project. He is waiting to get a lease agreement from Wells Fargo (currently in their legal department).

F. Planner's Report.

1. Tree Ordinance Follow-up Discussion – Planner Rahimzadeh made a presentation to Council regarding Runoff Coefficient Values and Environmental Policy Assessment (attached hereto as Exhibit B and incorporated as a part of the minutes). He pointed out the flaws of the runoff coefficient as it does not take into account the surface under the tree canopy. The Clean Water Project No. 4837 abstract is the overall goal is to document the contribution of urban tree systems to stormwater nutrient and volume control in terms of their effectiveness at various scales, costs, desirability and practicality. The cost-benefit takeaway is that if stormwater management is the only benefit considered, then the return on investment is low (negative) as life cycle costs far exceed the benefits. He stated tree preservation needs to also be considered. Our current ordinance was adopted April 12, 2010 (C-UDO-52) and amended in May 9, 2011 (C-UDO-58). An 11-person advisory tree committee was created in 2009 to help establish goals and objectives for the ordinance using a framework recommendation set forth by the Planning Board. He then discussed the costs and benefits of tree preservation. He showed Council a federally created program which is a suite of software tools to assess urban vegetation and their ecosystem services and values called i-Tree. He asked Council for direction on what they would like to see and advised that he will be looking into other programs such as Tree-City USA, NC State, etc.

G. Stormwater Engineer's Report.

1. Stormwater Fee Structure Discussion/Direction – moved to next meeting.


H. Council Comments – Council Member Rogers stated “In honor of former Sgt. Robert Burrow, Roll Tide Roll!” Council Member Cameron stated she received her first COVID-19 vaccine last week and thanked the Forsyth County Health Department as the event was very well organized. Mayor Wait congratulated Jeff Zenger who was sworn in as House Representative and thanked Jim Smith for planting Clemmons’ flags in the middle of Lewisville. Mayor Wait announced that English’s Bridal and Formalwear won the window decorating contest for the Village of Clemmons.

I. Closed Session for Attorney-Client Privilege in accordance with NCGS 143-318.11(a)(3) and to Discuss Property Acquisition in Accordance with NCGS 143-318.11(a)(5) - Council Member Cameron moved to suspend the remote participation policy regarding closed sessions and allow Council Member Barson to participate remotely and go into closed session for Attorney-Client Privilege in accordance with NCGS 143-318.11(a)(3) and to Discuss Property Acquisition in accordance with NCGS 143-318.11(a)(5) at 7:00 p.m. The motion was seconded by Council Member Rogers and unanimously approved.

At 8:08 p.m., Mayor Wait stated that by unanimous vote Council chose to reconvene the open session with no action taken.

Adjournment

Council Member Rogers moved to adjourn the meeting at 8:08 p.m. The motion was seconded by Council Member Cameron and unanimously approved.



John Wait
Mayor

ATTEST:



Lisa Shortt, NCCMC
Village Clerk

REQUEST FOR PROPOSAL

**Municipal Information Technology
(IT) Managed Services & Solutions**



Municipal IT Managed Services for the Village of Clemmons

Introduction of RFP:

The Village of Clemmons invites qualified IT companies to submit a proposal and statement of qualifications for professional Information Technology (IT) managed services. The qualified vendor will enable the Village to significantly improve operational effectiveness, enhance quality of services, improve IT security, and maximize return on investment of IT budget dollars. A contract will be awarded on a "best value" basis; price and ability to deliver services. The Village places greater emphasis on municipal experience and long-term viability of the vendor. Following negotiation, the successful vendor will be asked to enter into a contract with the Village of Clemmons.

PURPOSE AND OBJECTIVES:

Purpose – The Village is seeking a qualified vendor to provide technical managed services support for their IT infrastructure, in the form of network support including 24/7/365 monitoring services, security services, maintenance of hardware, updates to software, troubleshooting/repair of all computer systems and network server equipment, as well as managing backup and disaster recovery services through a mix of remote and onsite efforts. Also, of importance, is the ability of the vendor to deliver high quality help desk support that recognizes the varying levels of technical aptitude of Village staff and provides said support in terms that can be understood by a layman. The Village may also look to the successful vendor for special project consulting and other related services from time to time.

Objectives – Our primary objectives are to better manage the Village IT environment, maximize the value of the IT budget, and improve user and citizen satisfaction, while maintaining a robust environment that maximizes security of sensitive data in compliance with Federal and State regulations.

Solution Preference

Based on Village research and municipal references, the Village has decided to implement an IT Managed Services Model. **This is to be a fully outsourced solution where the company assumes responsibility for support of all aspects of the Village's IT environment. The company must be the single point of contact for all staff and external vendors, for all IT related support issues. The pricing model is to be based on an "all inclusive" predictable monthly fixed fee.**

TIMELINE FOR RFP PROCESS:

The timeline listed below is the Village's estimation of time required to complete the RFP process. All efforts shall be made to abide by this schedule, but the Village maintains the right to change this schedule dependent upon evolving circumstances.

RFP Issued: XXXXXX
Proposals Due: XXXXXX
Village Council Meets to Review Proposals: XXXXXX

RFP CLOSING DATE AND TIME:

Your completed and signed response, in the specified order and manner required, must be received at the Clemmons Village Office marked “Village of Clemmons - RFP: IT Services” no later than:

XXXX by 5:00 PM

Submit your proposal package either by email, mail or hand delivered to:

**Village of Clemmons
ATTN: Village Manager
3715 Clemmons Road
Clemmons, NC 27012**

PROPOSALS RECEIVED AFTER SPECIFIED DATE AND TIME WILL NOT BE ACCEPTED.

VENDORS ARE RESPONSIBLE FOR PROMPT DELIVERY OF THEIR PROPOSALS.

OVERVIEW AND SCOPE

Overview

The Village of Clemmons does not have an IT Department and is currently using an existing employee and an outside vendor to provide IT Services. The Village has a Windows based computer network consisting of servers, desktop workstations, laptops, and other IT devices. All workstations are fully networked. The Village of Clemmons has contracts with several vendors for line of business application specific support. The vendor selected for IT Managed Services will be required to interface with the application specific vendors when necessary.

Scope:

Existing Equipment:

XX - Desktop & Laptop

XX - Telephones

5 - Servers

XX - Email accounts

3 Sites with IT users

The company must provide the following services and support items, included in the **fixed monthly fee**:

- **Monitoring Services**
 - 7x24x365 Monitoring & Alerts
 - 7x24x365 Incident Response Services
 - Performance Data Collection and Reporting
 - Managed Anti-Virus/Anti-Spam
 - Virus incident reporting
 - Backups Monitor and Management
 - Managed and Monitored Security Patches applied as needed from Microsoft
- **Managed Services**
 - Single Point of Contact for all IT Issues
 - IT Director Services (VCIO)
 - 7x24x365 Help Desk staffed with actual vendor engineers
 - Managed PC Support
 - Managed Server Support
 - Managed Network Support
 - 7x24x365 Remote Support
 - 7x24x365 Onsite Support
 - **3rd Party Vendor Management**
 - Support Remote/Mobile Access for staff and Council members

- Manage Cloud Backups
 - Manager Cloud Disaster Recovery Services
- **Hosted Voice Over IP (VoIP)**
 - Vendor must provide their own VoIP telephone solution and support; not simply resell another vendor's service
 - Full Enterprise class features
 - Cloud-based non-blocked call switching
 - Private line capability for each phone
 - Includes system disaster recovery
 - System auto-rerouting in case of internet failure
 - Fixed monthly fee/phone
 - 7x24x365 support to be included in the monthly fixed fee
 - Telephones should be included in the monthly fixed fee
 - No analog phone lines are to be required
 - Hardware and software upgrades or replacements to be included in monthly fixed fee. No additional fees
 - Full function "work at home" capability
 - Must port existing phone numbers to new system
- **VCIO – IT Director Services**
 - The selected vendor must include a Virtual CIO (IT Director) as part of their managed service solution. This individual's function is dedicated to overseeing the successful management of the Village's IT operations. The VCIO must have significant CIO level experience in managing, planning, and budgeting IT operations for major entities. It is not an acceptable solution for a vendor's day-to-day support engineer to also preform the VCIO function. This must be a qualified and dedicated function.
- **References**
 - Provide at least four (4) North Carolina municipal references of similar size and scope. These references must have been active accounts for at least the last 12 months where the vendor provided full outsourced IT managed services for all municipal functions. Include a contact name, phone number, services provided, length of service, and email address.
- **Endorsements**
 - List all Local Government Association vendor endorsements the company currently has, including any special business terms or pricing the endorsement affords the Village. Provide a name, telephone number, and email for a responsible contact at each association.
- **Line-of-Business Application Experience**
 - The company should have significant functional experience with a wide variety of different local government specific line-of-business software applications where IT support and third-party vendor coordination has been provided. Prior support of the Edmunds (Logics) software application is a plus.

- **CJIS Security Requirements and Background Checks**

Although the Village does not have a law enforcement department, it recognizes the value of a CJIS compliant engineering support staff.

- Certify that all vendor support engineers, and support staff have:
 - Successfully completed the FBI Criminal Justice Information System (CJIS) Security & Awareness Training Course for the Level 1 CJIS Security Test with a valid NC law enforcement agency.
 - Passed the FBI CJIS / NCIC law enforcement background check to verify no pertinent criminal history.
 - Complete a Federal Bureau of Investigation national fingerprint database search.
 - Approval to access networks that connect to the Federal Bureau of Investigation's (FBI) National Crime Information Center (NCIC) Systems, therefore meeting the requirements needed for local law enforcement audits.

- **Data Center Hosting Environment**

- When appropriate, portions of the Village's IT infrastructure shall reside in a vendor provided enterprise class data center. The data center must have the appropriate hardware, software, networking, storage, security, and internet connectivity to support the Village's needs for a hosted solution. The Village's hosted environment must be implemented in an environment which is backed up daily to one or more alternate data centers geographically displaced from the original.

It is mandatory that all data centers involved in providing the hosted solution must be independently audited and maintain a SOC2 – Type 2 accreditation.

- The data centers must, as a minimum, have the following attributes:
 - **Monitoring:** 24x7x365 Network Operations Center monitoring of devices. The data center is also monitored for temperature, humidity, and standing water.
 - **Infrastructure:** Redundant A/C, Uninterruptable Power Supply (UPS) and generator backed power
 - **Network:** Leverages multiple internet carriers and utilizes redundant cabling, switching, and routing
 - **Data Storage Backup:** Redundant server and storage capabilities achieved through Storage Area Network (SAN) and virtualization technologies. Daily offsite storage of backup media as well as online replication to an alternate data center geographically displaced from the

original.

- **Waterless fire suppression system:** System reaches extinguishing levels in 10 seconds or less, stopping ordinary combustibles, electrical, and flammable liquid fires before they cause significant damage.
- **Physical access barriers:**
 - Access card required to gain entry to data center door.
 - Finger Vein Reader protecting data center door. Vein patterns are very difficult to replicate, making forgery virtually impossible and ensuring maximum security.
 - Data center alarms on any forced entry or entry without biometric authentication.
 - Cameras with infrared lighting record during a power or lighting failure
- **Additional Security Details:**
 - Necessary controls in place and the data center's security is audited on a regular basis.
 - Highly available redundant firewalls
 - Internal monitoring of IPS and network security
 - Third party security monitoring with completely separate IPS and log management devices. All data is stored offsite and not modifiable by Consultant.
 - Encrypted system back-ups are stored offsite
- **Dedicated Project Management Function**
 - The vendor must have a dedicated Project Management Team utilizes the guidelines set forth by the Project Management Body of Knowledge (PMBOK) best practices. PMBOK practices are expected to be used to provide the fundamentals of project management by following the guidelines (initiating, Planning, Executing, Monitoring and Controlling, and Closing) to successfully accomplish project objectives and ensure customer satisfaction.
- **Client Relationship Management**
 - Support Staff
 - Provide the number of vendor employee support staff by function. Each support individual can only be listed once.
 - # of VCIOs (IT directors)
 - # of dedicated Help Desk Engineers
 - # of System Engineers
 - # of Technical Team Leads
 - # of Level 3 Escalation Engineers (domain experts)
 - # of Account Managers (primary business contact)
 - # of Data Center Infrastructure Engineers
 - # of Project Managers
 - # of Application Development Engineers

- Domain Expertise
 - Provide the number of employed individuals and their certifications with each specific domain expertise:
 - PCs
 - MS Servers
 - MS 365
 - Microsoft SharePoint
 - Networking
 - Virtualization
 - Storage Systems
 - Security
 - MS Power BI
- **Hours of operation for Help Desk Support**
 - The Village desires the company to staff its helpdesk function with actual company engineers to answer trouble calls 7x24x365 (not an answering service).
- **Monitoring, Alerting, and Management Tools**
 - Name of ITIL based **Help Desk System** that would be used to support the Village
 - Name of **RMM System** that would be used to support the Village
 - Name of **Network Monitoring System** that would be used to support the Village
- **Breadth of Solution Offerings**

The Village is looking for a partner with broad solution experience, including multiple engineers with domain expertise in each relevant technology. Check the solution categories where you have existing municipal installations for at least the last 12 months.

- ___ Premise Based Managed Services
- ___ Hosted Desktop Cloud Based Managed Services
- ___ VCIO (IT Director services)
- ___ Managed security services & solutions
- ___ MS Office 365 installation and migration services
- ___ VCISO – virtual chief information security officer
- ___ Hosted Voice Over IP Telephony Solutions (VoIP)
- ___ Cloud Based Backups
- ___ Cloud based full Solution Disaster Recovery
- ___ CJIS specific support Services
- ___ CJIS compliant hosting environment

- ___ Hardware as a Service (HaaS)
- ___ Security Assessments
- ___ Website Design & Hosting
- ___ Business Analytics
- ___ Certified SharePoint Design & Consulting Services
- ___ Application Development Services

COMPANY REQUIREMENTS

Companies submitting proposals are required to be specific about disclosing any part of proposal which will be carried out by any other parties, the specifics and materials regarding those parties' relationships and agreements with the proposal submitter, and provide contact numbers, one for each entity, to the Village.

CRITERIA FOR SELECTION

The Village of Clemmons will use multiple criteria to select the Village's IT managed services partner. While all reasonable proposals will be considered and weighed based on their merits, the Village reserves the right to reject any or all proposals and/or limit them to a portion based on what is deemed the best interest of the Village.

We invite applicants to be as creative and thorough as possible when submitting a response. We will be evaluating IT managed service companies based on the following areas:

- Meeting Village's listed needs
- Documented applicable municipal experience
- Applicable municipal references
- Monthly Fixed Fee pricing model
- Availability of support
- Demonstrated capacity of delivering services

PROPOSAL REQUIREMENTS – Proposal must include, at a minimum, the following:

Cover Letter – to contain the following:

- Company/individual name, address, telephone number, email address, and website.
- A brief summary of the vendor's understanding of the services to be performed.
- A summary of the vendor's proposal, qualifications, and approach.
- A statement indicating that the proposal and fee schedule shall be valid and binding for sixty (60) days following the proposal due date and will become part of the contract that is negotiated with the Village.

- The letter must be signed by an individual who is legally authorized to bind the proposing vendor stating that the vendor has read and will comply with the specifications and conditions of the RFP.

General Vendor Information – to contain the following:

- Size of the vendor’s company and number of full-time and part-time personnel.
- Location of office(s) and hours of operation.
- Years in business.
- Length of time in providing similar services.
- Total number of existing clients broken down between private and public sectors.
- Provide the name, title, address, telephone number, and email address of references for Municipal clients whom the vendor has provided similar services.
- Describe how your company is positioned to provide the services listed above and include a brief history of experience on providing similar services.
- Describe your company’s approach to providing these services and the methodology for ensuring ongoing support including protocols for securing after-hours support, and your process for troubleshooting and addressing work orders.
- Describe your company’s strategy for keeping the Village informed of system conditions, changes, scheduled down times for maintenance, and other items.
- Describe your plans and strategy for securing the Village’s data and providing for disaster recovery.
- Describe how you would assist the Village to ensure our IT systems remain efficient and dependable, adapt over time with the evolving IT landscape, and allow the Village to provide superior customer service while adhering to Federal and State requirements.
- Describe your ability to monitor the Village’s operations to ensure the stability of our computing environment.
- Describe how your company will maintain coverage/support during holiday periods.
- Describe any additional services or information you believe may be required or worth consideration as part of your proposal.

Financial Proposal:

Please submit a fixed fee model proposal with validity for a period of at least three years covering all the services described within this document. Elements of the Financial Proposal to include:

- A detailed breakdown of any on-boarding/set up fees.
- A detail of what is included and excluded with/from fixed monthly charge.
- A fee schedule for emergency services provided during regular and off hours.
- A listing of any services that will be offered to the Village at no additional charge.

RFP GENERAL TERMS AND CONDITIONS:

RFP Amendments

The Village reserves the right to change the schedule or issue amendments to this RFP at any time. The Village also reserves the right to cancel or reissue this RFP.

Vendor's Cost to Develop Proposal

Costs for developing proposals in response to this RFP are entirely the obligation of the vendor and shall not be chargeable in any manner to the Village.

Withdrawal of Proposals

Proposals may be withdrawn at any time prior to the submission time specified in this RFP, provided notification is received in writing. Proposals cannot be changed or withdrawn after the time designated for closing of the RFP.

Rejection of Proposals – Waiver of Informalities or Irregularities

The Village reserves the right to reject any or all proposals, to waive any minor informalities or irregularities contained in any proposal, and to accept any proposal deemed to be in the best interest of the Village.

Proposal Validity Period

Submission of the proposal will signify the vendor's agreement that its proposal and the content thereof are valid for 60 days following the submission deadline and will become part of the contract that is negotiated between the Village and the successful vendor.

Public Records

Documents submitted in response to this request for proposals become a public record upon submission to the Village, subject to mandatory disclosure upon request by any person, unless the documents are exempted from public disclosure by a specific provision of law.

Contract Award and Execution

The Village reserves the right to make an award without further discussion of the proposal submitted. Therefore, the proposal should be submitted on the most favorable terms the vendor can offer. It is understood that the proposal will become a part of the official file on this matter without obligation to the Village.

The Village reserves the right to request clarification of information submitted and to request additional information from any vendor.

The general terms, conditions, and specifications of the RFP as proposed by the Village and the successful vendor's response, as amended by agreements between the Village and the vendor, will become part of the contract documents. Additionally, the Village will verify vendor representations that appear in the proposal. Failure of the vendor's products to meet the mandatory specifications may result in elimination of the vendor from competition or in contract cancellation or termination.

The vendor selected as the apparently successful vendor will be expected to enter into a contract with the Village. The Village reserves the right to reject any proposed agreement or contract that does not conform to the specifications contained in this RFP.

Equal Opportunity Compliance

The Village is an equal opportunity employer and requires all vendors to comply with policies and regulations concerning equal opportunity. The vendor, in the performance of this Agreement, agrees not to discriminate in its employment due to the employee's or applicant's race, religion, national origin, ancestry, sex, sexual preference, age, or physical handicap.

Other Compliance Requirements

In addition to the nondiscrimination and affirmative action compliance requirements previously listed, the vendor awarded a contract shall comply with federal, state and local laws, statutes, and ordinances relative to the execution of the work. This requirement includes, but is not limited to, protection of public and employee safety and health, environmental protection, waste reduction and recycling, the protection of natural resources, permits, fees, taxes, and similar subjects.

Ownership of Documents

Any reports, studies, conclusions, and summaries prepared by vendors responding to this RFP shall become the property of the Village.

Confidentiality of Information

All information and data furnished to the vendor by the Village, and all other documents to which the vendor's employees have access during the term of the contract, shall be treated as confidential to the Village. The successful vendor will be expected to enter into a nondisclosure agreement with the Village. Any oral or written disclosure to unauthorized individuals is prohibited.

ENVIRONMENTAL POLICY ASSESSMENT

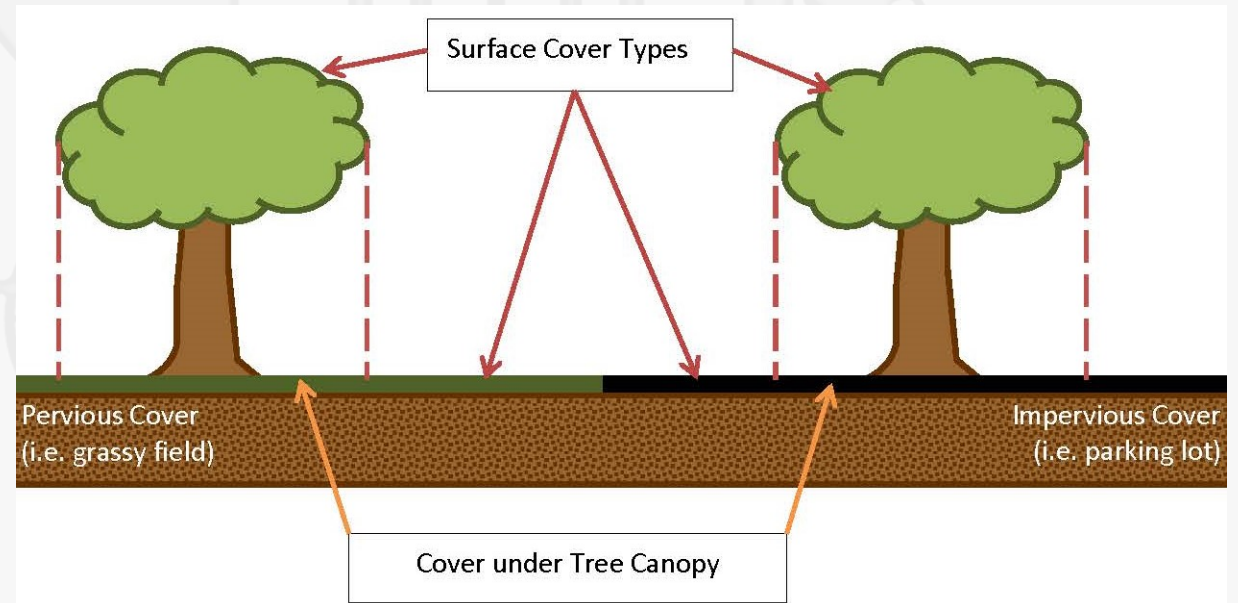
- The Rational Method is one of the most commonly used procedures for calculating peak flows from small drainage less than 200 acres.
- The runoff coefficient is a dimensionless coefficient relating the amount of runoff to the amount of precipitation received
 - The coefficient will change in value based on level of infiltration and topography

Recommended Runoff Coefficient Values

<u>Description of Area</u>	<u>Runoff Coefficient (C)</u>
Lawns	0.30
Wooded	0.25
Streets	0.95
Gravel Areas	0.55
Drives, walks, roofs	0.95
Bare soils	0.45
Residential (including streets):	
Single-Family (Lot < 20,000 square feet - SF)	0.60
Single-Family (Lot > 20,000 square feet - SF)	0.50
Multi-family, Attached	0.70
Industrial:	
Light areas	0.70
Heavy areas	0.80
Office Parks	0.75
Shopping Centers	0.80

ENVIRONMENTAL POLICY ASSESSMENT

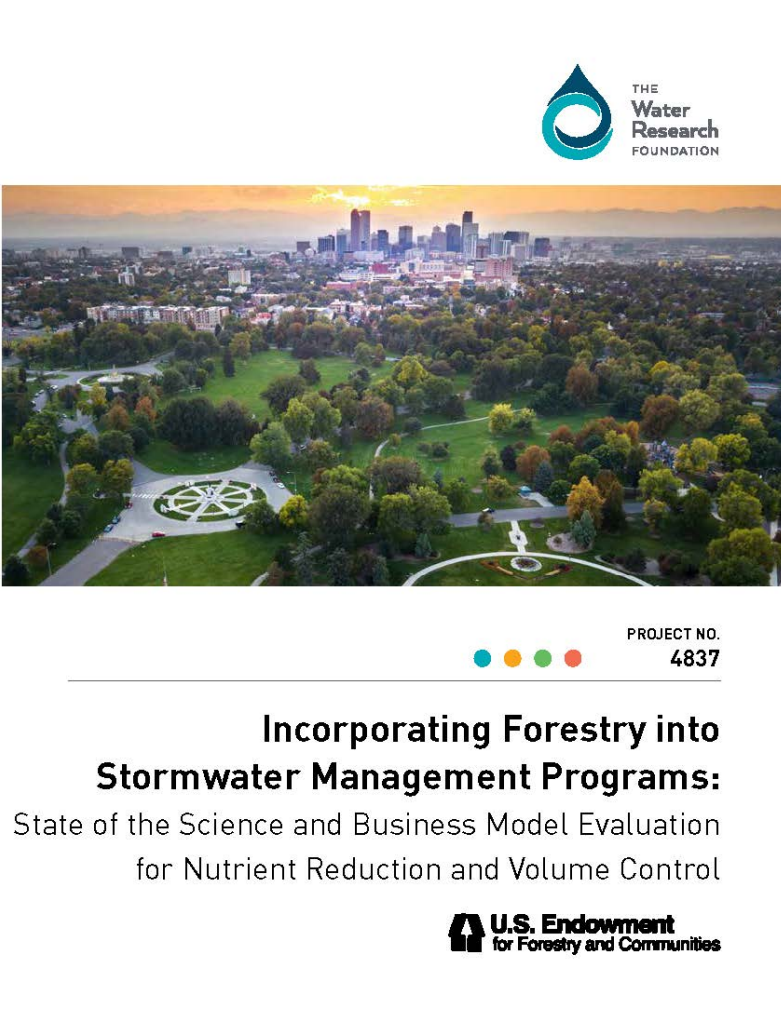
- The runoff coefficient methodology does not necessarily account for cover under the tree canopy.
- Wooded runoff coefficients may be higher in practice due to the runoff coefficient of the cover under the tree canopy.



ENVIRONMENTAL POLICY ASSESSMENT

Project No. 4837

- Abstract: “The overall goal of this project was to document the contribution of urban tree systems to stormwater nutrient and volume control in terms of their effectiveness at various scales, costs, desirability, and practicality.”
- Cost-Benefit Database Takeaways “If stormwater management is the only benefit considered, then the return on investment is low (negative) as life cycle costs far exceed the benefits.”



The cover of the report features the logo of The Water Research Foundation in the top right corner, which consists of a stylized blue water drop icon and the text 'THE Water Research FOUNDATION'. Below the logo is a wide aerial photograph of a city skyline at sunset, with a large green park area in the foreground containing a circular plaza with a geometric design. In the bottom right corner of the cover, there are four colored dots (blue, orange, green, red) and the text 'PROJECT NO. 4837'. The title 'Incorporating Forestry into Stormwater Management Programs:' is centered in a bold font, followed by the subtitle 'State of the Science and Business Model Evaluation for Nutrient Reduction and Volume Control'. At the bottom right, the logo for the U.S. Endowment for Forestry and Communities is displayed, featuring a stylized tree icon and the text 'U.S. Endowment for Forestry and Communities'.

ENVIRONMENTAL POLICY ASSESSMENT

Clemmons Landscaping and Tree Preservation Standards Ordinance

- The current Landscaping and Tree Preservation Standards Ordinance was adopted on April 12th, 2010 per zoning docket #C-UDO-52
- Further amendments to the Landscaping and Tree Preservation Standards Ordinance were adopted on May 9th, 2011 per zoning docket #C-UDO-58
- The Village of Clemmons created an eleven person advisory tree committee in 2009 to help establish goals and objectives for the ordinance using the framework recommendation set forth by the planning board, formulate recommended policy, and oversee development of the draft and final documents.

ENVIRONMENTAL POLICY ASSESSMENT

Tree [benefits](#) include:

- Carbon capture
- Other air pollutants
- Hydrological benefits

Tree costs include:

- Management (e.g. planting, pruning, removal)
- Infrastructure repair
- Annual litter and storm cleanup costs

What is i-Tree?

A suite of software tools to assess urban vegetation and their ecosystem services and values

