

# Proposal to Brunswick County Public Utilities for A Full-Service Land Application Program of Wastewater Treatment Biosolids

June 8, 2022



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Brunswick County Public Utilities Attention: Donald Dixon, Deputy Director Wastewater 250 Grey Water Road NE Supply, NC 28452

RE:

Request for Proposals Full-Service Land Application Program

For Wastewater Treatment Biosolids

Dear Mr. Dixon:

EMA Resources, Inc. is pleased to submit the following Proposal for the Land Application of Wastewater Biosolids. Your will find all the requested information per the Brunswick County's Request for Proposals.

This proposal consists of the following, Executive Summary, Key Personnel, Experience/References, Scope of Services, Regulatory Compliance, Project Equipment, Optional Approaches, Contingency Plan, Safety Program, Proposal Pricing Forms, Certificate of Insurance.

If you have any questions concerning EMA Resources, Inc.'s Proposal, you can contact Roy Whitaker at the office number listed below or on mobile 336-909-1718.

EMA Resources, Inc. looks forward to discussing our Proposal further and the possibility of a partnership with the Brunswick County to provide a professional cost-effective biosolids management program.

Respectfully,

EMA Resources, Inc.

Roy L. Whitaker

Director Business Development/Operations

Erik Blankenship

Gul Bluky

President

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# **EXECUTIVE SUMMARY**

EMA Resources, Inc. is a Professional Residuals Management Firm headquartered at 755 Yadkinville Road, Mocksville, NC 27028. EMA Resources, Inc. was founded in May, 2000; by Erik Blankenship and partners. Erik grew up being involved in the residuals management industry, while working with the family business, Environmental Waste Recycling, Inc. (EWR) for over 15 years. In November of 1998, EWR was purchased by a publicly owned company. Soon after, Erik's realized that, in a time when the residuals management industry had evolved toward large national providers, there was a real need for a small, privately owned, regional company.

EMA Resources, Inc.'s management staff has over 90 years of combined experience in every aspect of providing residuals management and land application programs for municipalities and industries throughout the Southeastern United States. The management of EMA Resources, Inc. feels strongly that there is a REAL need for a company dedicated to providing select clients with quality service, personal attention, and particular attention to operating every program within the regulatory compliance standards set by the EPA and NCDENR. It is EMA Resources' mission to remain a regional company, which is flexible, responsive, and committed to providing our select clients with the highest quality service they expect and deserve. Our industry knowledge and hands-on approach will allow us to provide innovative and cost-effective solutions to any of our clients' residuals management needs.

This vision has proven successful for EMA Resources, Inc. and our select clients. EMA Resources, Inc. has remained steadfast in our philosophy of managed growth. EMA Resources Inc. does not desire to be the biggest residuals management company; it is our desire to be the foremost residuals management service provider.

EMA Resources, Inc. provides a wide range of services in providing our municipal and industrial clients with "Turn-key" Residuals Management Programs. The following is a list of services EMA Resources, Inc. provides:

- Liquid Residuals Transportation & Land Application
- Dewatered Residuals Transportation & Land Application
- Marketing & Distribution
- All Monitoring and Reporting
- Sampling & Analysis
- Permitting Services
- Alkaline Stabilization and Certification Services
- Mobile Mechanical Dewatering Services
- Lagoon Cleanout Services
- Lagoon Dredging Services
- Digester Cleaning Services
- Nutrient Management Planning
- Feasibility Studies & Consulting

EMA Resources Inc. will be providing all services described in this proposal with internal resources based in our Eastern North Carolina HUB, with the exception of transportation sub-contractors. The utilization of independent motor carriers allows us to submit the most cost-effective program to Brunswick County Public Utilities. Each independent motor carrier will be required to name EMA Resources Inc. as additional insured on their policies. If awarded this contract EMA Resources Inc. will secure and forward the additional insured certificates for the assigned independent motor carriers.

The Brunswick County biosolids land application program will be serviced out of EMA Resources Inc.'s Eastern North Carolina HUB in conjunction with a Project Manager assigned exclusively to Brunswick County. The Project Manager will have a Pumper Truck Spreader and his CDL and will regularly haul and land apply residuals. Approximately 6-8 times per year this Eastern NC Hub crew will mobilize to empty the WWTP tanks. This operational crew is based in Tarheel, NC and has responsibility for clients scattered in NC & SC. Our Eastern North Carolina HUB is equipped with two high flotation tractor/pull tanks and five 6500-gallon tankers. The Project Manager with guidance from a Director of Operations will work directly with the Brunswick County WWTP staff and the local farmers on scheduling operations. In addition to the dedicated Pumper Truck Spreader,

a typical mobilization will include 1-2 tractor/pull tanks and 3-4 tankers (dependent on haul distance). Additional resources will be mobilized as operational needs dictate.

Technical support will be provided out of our corporate office. Monthly and annual reports will be prepared by technical staff and forward to the Brunswick County Public Utilities on a timely basis for review and submittal. Technical staff will inform the project manager of the application rates based on the nutrient and metal characteristics of the biosolids prior to operations. The application rates will be based on the most limited factor, which is generally Nitrogen. Technical staff will communicate with participating farmers on supplemental fertilizer recommendations.

Upcoming changes in the North Carolina regulations with regard to land application of residuals will be monitored closely and implemented when adopted. EMA Resources Inc. will keep the Brunswick County Public Utilities informed of pending regulatory issues or public relation hot spots that will impact the program

# **KEY PERSONNEL**

# Erik Blankenship, President

A 1994 graduate of Western Carolina University, majoring in Business Administration; Erik has over 30 years' experience in every aspect of the residuals management industry. Erik's family owned and operated Environmental Waste Recycling, Inc., which was incorporated in 1978. Throughout the years, Erik has worked in all facets of the industry including equipment operator, technical services, sales and marketing. In 1998, EWR was acquired by a national company, where Erik took the position of Regional Business Development Manager. As President of EMA Resources, Inc., Erik is responsible for the overall business activities, contract negotiations, public relations, as well as management of growth. Erik is a Certified Land Application Operator by the NCDENR, and a member of the NC AWWA and WEF.

Erik will be responsible for corporate/administrative support and billing for the Brunswick County program.

# Mike Collins, Director of Operations

Mike has over 30 years of experience in the technical and operations areas of the residuals management industry. Mike has worked extensively in the mobile mechanical dewatering, technical services, and operations. Mike joined Erik as a partner in founding EMA Resources, Inc. in May, 2000. As Director of Operations of EMA Resources, Inc., Mike is responsible for all operational scheduling, hiring and training of personnel, OSHA requirements, maintenance, and overall coordination. Mike is a Certified Land Application Operator by the NCDENR, and a member of the NC AWWA and WEF.

Mike will be responsible for equipment support and resources for the Brunswick County program.

# Roy Whitaker, Director-Business Development/Operations

A 1982 Graduate of NC State University majoring in Agriculture. Roy was a private agricultural consultant in Eastern North Carolina (Halifax, Northampton and Edgecombe Counties) for eight years. It was in 1990 that Roy began his current 30+ year career in the residuals management industry. Roy has served in all aspects of the industry, including technical services, operations, to Senior Management of a regional and national company. Roy joined EMA Resources, Inc. in March, 2006 with responsibilities for strategic business development and operations management. Roy currently serves as an instructor at the North Carolina and South Carolina Land Application Certification Schools. He is a current member of the Residuals & Groundwater committees in NC, SC, GA, & TN.

Roy will work directly as the Director of Operations with the Project Manager and Brunswick County Public Utilities. Those duties will include operational issues, scheduling or agronomic management issues. Roy has direct experience working with the Brunswick County's Biosolids Land Application Program. The experience will assure a smooth transition and program continuity.

# David O'Brien, Director of EHS&T

Dave is a 1989 Graduate of Northwest Missouri State University. Dave has worked in and around the residuals management industry since 1985 while working his way through school. His experience includes technical services, operations and sales. Dave joined EMA Resources Inc. as a partner in May 2004 and is currently responsible for the EHS&T program and policies, OSHA requirements, equipment maintenance & records and new hire training. Dave is a Certified Land Application Operator by the NCDENR, and has completed the OSHA 10 training through the Safety and Health Council of North Carolina.

Dave will evaluate the Brunswick County program for EHS&T issues and serve as support to the local Project Manager.

# **Brent Collins, Director of Technical Services**

Brent joined EMA Resources Inc. June, 2001 as an Environmental Technician/Operator with responsible for proper/compliant equipment operations. Brent assumed the role as a Project Manager in June 2002 with responsibility for multiple projects operations including, Scheduling, Equipment Repair and Maintenance, Biosolids and Soils Sampling, Client and Farmer Communications and Project Personnel Supervision and Training. After four years of cross training in Technical Services and Operations, Brent assumed the role of Director of Technical Services in June, 2005. His current responsibilities include, monitoring and reporting technical data for clients, mapping and permitting land application sites, assures Federal and State regulatory compliance, training new employees on company policies on reporting and technical operations, compiling and submitting annual reports to EPA and NCDENR, liaison to state and federal regulating officials and client communications on process compliance and sampling.

Brent will work closely with Brunswick County WWTP personnel on the responsibilities described above in addition to technical support for the local Project Manger.

# Luke Stowers, Project Manger

EMA Resources, Inc. has arranged to hire Luke if successful in obtaining the Brunswick County contract. Luke has over 25 years' experience in the biosolids industry. Luke is a Brunswick County native and resident, his relationship with Brunswick County farmers is priceless. Luke managed the ADM land application program along with surrounding projects in Southeastern NC.

Luke will join EMA Resources Inc. upon execution of a contract between EMA Resources, Inc. and Brunswick County. In his role as Project Manager, Luke will coordinate all land application events with the landowners and clients, manages all operations personnel, and communicates with EMA's Technical Staff to ensure regulatory

compliance with all operations. Luke is responsible for all day-to-day operations, while maintaining the highest quality service and regulatory compliance.

Luke will be working directly with the Brunswick County WWTP staff to schedule operations and communicating with the farmers on site accessibility.

# **EXPERIENCE AND REFERENCES**

# City of Gastonia, NC

25,000,000 gal/yr., 2,971.1 acres permitted Stephanie Scheringer, Director 704-866-6726

Start Date: Jan 2003

# City of Washington, NC

2,500,000 gal/yr. 1388.9 acres permitted Hope Woolard, Superintendent 252-927-9374

Start Date: June 2006

## City of Union, SC

4,000,000 gallons bi annually 847.5 acres permitted Joe Nichols, Town Manager 864-429-1721

Start Date: July 2009

# **Smithfield Packing Co.-Clinton**

12,000 wet tons/yr., Landfill Energy Recovery Rick Bowen, Environmental Mgr. 910-305-0066

Start Date: March 2008

## City of Asheboro, NC

8,000 cu. yds./yr. Land Application 920 acres permitted Michael Rhoney, Dir. Water Resources 336-626-1201 Ext. 258 Start Date: January 2015

#### Unifi, Inc

3,000,000 gal/yr. Class A Residuals Lisa Haynes, Environmental Mgr. 336-348-6516 Start Date: Oct 2012 City of Shelby, NC

4500 cu.yds./yr., 1MG/yr. 500 acres permitted David Hux, Utilities Director 704-284-2084

Start Date: January 2021

# Smithfield Packing Co.-Tar Heel

6MG /yr., 25,000 wet tons/yr. 1,412.4 acres permitted Robert Harris, Environmental Mgr. 757-613-1339 Start Date: July 2006

#### City of Reidsville, NC

12,MG gal/yr., Mobile Dewatering 1,016.8 acres permitted Chuck Smith, Utilities Director 336-349-1073 Start Date: Jan 2003

#### Davidson Water, Inc.

1.5 MG/yr. 1,500 cuds/ yr. D&M Permit, Land Application Craig Koontz, Residuals Mgr. 336-764-2534

Start Date: April 2007

# City of Salisbury, NC

10,000 cu. yds./yr. 1000 acres permitted Bob Loper, Residuals Coordinator 704-762-0521 Start Date: September 2018

# Town of Yanceyville

2,000,000 gallons per event 252.8 acres permitted Brian Colie, Town Manager 336-694-5431

Start Date: March 2017

# **Momentive Specialty Chemical**

Mobile Dewatering Event Landfill Disposal Mr. Scott Happel, Plant Engineer 910-987-5928 Start Date: July 2012

# Town of Lowell, NC

600,000 gal/yr. Incinerator Transfers Dan Daugherty, Plant Superintendent 704-477-5514 Start Date: Jan 2003

# Davie County, NC

750,000 gal/yr. 533.0 acres permitted Johnny Lambert, PU Director 336-909-3942 Start Date: Jan 2008

# Town of Bennettsville, SC

1,000,000 gal/yr. Land Application Rick Huckabee, Plant Superintendent 843-479-3011

Start Date: June 2017

# **Guilford Performance Textiles**

3,000,000 annually D&M Permit Mr. Steve Molino, Plant Manager 910-372-1151 Start Date: Oct 2013

# City of Danville, VA / Inframark

3500,000 gal/yr. 814 Permitted Acres Jerry Shupe, VP East Region 434-822-3635 Start Date: March 2013

# Town of Mocksville, NC

1MG/yr. 100 acres permitted Todd Robinson, WWTP ORC 252-235-8809 Start Date: May 2010

# City of Durham, NC

25,000 cu. yds/yr 3MG/yr Land Application Cake Liquid Transfers James Harding, Principal Engineer 919-560-4381 ext 35260 Start Date: January 2022

# SCOPE OF SERVICES

# MANAGEMENT AND OPERATIONAL PLAN

The Brunswick County program will be serviced by EMA Resource Inc.'s Eastern NC HUB in conjunction with a dedicated Project Manager (Luke Stowers). The dedicated project manager will operate a dedicated Pumper Truck Spreader on land accessible days. The Project Manager will coordinate scheduling the Eastern NC Hub to mobilize 6-8 times per year or as needed. This operational crew is based in Tarheel, NC. It consists of a Project Manager (JJ Henry) and two equipment operators. They are equipped with two high floatation tractor/pull tanks and five 6500-gallon tankers (hauled by Independent Motor Carriers).

EMA Resources Inc. goals will be to provide an environmentally sound and cost-effective beneficial reuse program for the Brunswick County WWTP biosolids. This will include compliance with all applicable permit requirements, proactive farmer/community relations and to be responsive to the Brunswick County's needs.

Upon award of the contract, EMA Resources Inc. will schedule a transition/orientation meeting in June/July with Brunswick County WWTP staff. This meeting will outline a plan for operation scheduling and farmer introduction.

Once an operational event has been scheduled based on receiver site accessibility and the WWTP's storage capacity, EMA Resources Inc. technical staff will audit technical data for compliance and calculate application rates based on agronomic needs. EMA Resources Inc. will mobilize two high floatation tractor/pull tanks and 3-4 tankers/independent motor carriers (dependent on haul distance). Each independent motor carrier will document each load on a daily loading log at the WWTP and a daily individual trucking manifest. When a load has arrived at an application site and off-loaded for application, it is documented on the field application log.

All logs are three-part forms that allow for a copy to be submitted to the local WWTP staff on a daily basis. A project manager submits his projects paperwork to EMA Resources Inc. corporate office on a weekly basis for input into the monitoring and reporting database. A monthly operational/technical report is generated and submitted to the client and the receiver site farmers.

EMA Resources Inc. will generate an operations invoice no later than the fifth business day following the operations event.

# TRANSPORTATION SYSTEM AND ROUTING

EMA Resources Inc. will utilize 6500-gallon aluminum tankers which are double conical with six-inch center discharge valves. These tankers will be calibrated and certified via a registered third party. The tankers are company owned and will be hauled by independent motor carriers under contract to EMA Resources Inc. It is EMA's philosophy to purchase refurbished tankers which are generally 10 to 15 years old. Through proper preventive maintenance and annual inspections in accordance with Federal DOT Highway Safety Regulations, EMA can expect a useful life of approximately 15 to 20 years.

Additionally, transportation will be provided via a 4500–5000-gallon Pumper Truck/Spreader

Transportation routes to the application sites will generally be selected based on the most direct legal weight limit route available. If there are issues which will impact the local community (churches, schools, subdivisions), alternate routes will be negotiated with Brunswick County's WWTP staff.

## SPILL AND EMERGENCY RESPONSE PROGRAM

# Spill Control Plan Brunswick County Public Utilities

In the unlikely event of a spill, the following action shall be taken immediately:

- 1. Halt source of the spill overturned truck, leaking gate.
- 2. Contain spill. Use straw bales to form a barrier. In addition to straw bales use shovels to form an earthen barrier to prevent further runoff.
- 3. Cleanup. Employ front end loader to remove as much spill material as possible or employ vacuum truck to off-load remaining biosolids. Complete clean-up by scattering straw to soak up remaining material and dispose of manually.
- 4. Final cleanup. Flush roadways with water as necessary to clean. Allow to dry and incorporate if spill occurs on a non-paved and tillable area. In the event a spill occurs on private property, final cleanup should be completed immediately to the satisfaction of the owner.
- 5. Notification. As soon as possible after the spill occurs, notify:
  - A. EMA Resources Inc.

Project Manager: Luke Stower: 910-279-5829 Project Manager: JJ Henry: 704-666-0230

Director of Operations: Roy Whitaker 336-755-5594

Main Office: 336-751-1441

B. Brunswick County Personnel

Donald Dixon 910-612-7463

Matt Henry 910-253-2479

C. Regional NCDENR Division of Water Quality: Wilmington Regional office 910-796-7215

D. County Emergency Management Office:

Brunswick Co. 252-253-5383

# **OUALITY ASSURANCE AND CONTROL PROGRAM**

EMA Resources Inc. maintains its QAQC program through employee training and empowerment. Our employees take ownership of their projects and equipment. Each employee from day one is taught the three golden rules: 1) safety, 2) being ethical and 3) full regulatory compliance.

As a check and balance in our program the technical staff routinely performs field audits. This along with our three-log system (plant, truck and application) assures proper documentation and reporting.

# **ODOR MANAGEMENT**

Potential odor issues are first addressed though proper site selection. A land application sites should first be evaluated as to whether it is a high-profile site (along main highways, across from schools, churches or businesses) or a low-profile site (rural, remote back forty). If high profile sites are permitted and utilized then consideration for the application method (surface with incorporation or injection) should be considered. The crop will dictate if the application method alternative is viable. If the site is in permanent grass, a second alternative would be to utilize an odor neutralizing chemical or masking agent.

Two chemicals which we have seen some success in resolving odor issues are Potassium Permanganate (Purple powder oxidizer) and WT-100 (Liquid Neutralizer/Masking Agent).

Additionally, application period for a particular site may be considered to minimize odors. The cooler fall and colder winter months will produce fewer odors than during the hot summer months.

If a particular site odor issue becomes a community/political hot bed, then serious consideration should be taken to eliminate the site.

# SURFACE WATER PROTECTION

Buffer requirements as set forth in the District's Non-Discharge Permit will be clearly flagged and maintained. Please note that the buffer requirements are minimums and special consideration for increasing these buffers will be evaluated during: extended wet periods, imminent rainfall events, site slope and location within the surrounding topography.

Reducing application rates (gallons per acre) on certain soil types will allow for absorption of the residuals which will minimize a potential runoff. Also, application methods (surface with incorporation or injection) could be utilized on susceptible run off sites. Note this is only an option on row crop sites that are not utilizing no-till practices.

# GROUNDWATER PROTECTION

Surrounding wells of the receiver sites will be noted on the application maps. The buffer requirements as set forth in the District's Non-Discharge Permit will be clearly flagged and maintained. Proper agronomic application rates will be utilized, which will eliminate the potential for migration of excess nutrients.

#### **CROP MANAGEMENT**

The permitted land application sites in the Brunswick County consist of row crops (corn, cotton, soybeans) and grass land (coastal bermuda, fescue). The Class A Biosolids allows more flexibility for field access by not requiring site specific permitting. EMA Resources Inc. will work closely with the farmers to maximize the nutrient value in timely applications. EMA Resources Inc. is fortunate to have its Director of Operation, Roy Whitaker be a native of Scotland Neck, where he ran his own private agriculture consulting business for eight years. Roy's knowledge of the agricultural practices in the surrounding community as well as the proper nutrient management of the crops will benefit the Brunswick County and the local farmers. The dedicated Project Manager (Luke Stowers) relationship with the local farmers and their farming practices will allow for a uninterrupted operations.

In any successful land application program, there has to be some trade off with the farmers desires for optimum nutrient application and Brunswick County's storage capabilities. It is the trade off of free fertilizer that encourages the farmers to be flexible in the timing of the residuals application.

# PUBLIC ACCEPTANCE

Public acceptance starts with education. It is EMA Resources Inc. belief that you can never start educating too early. Operational and Technical Staff participate in Earth Day presentations at local elementary and middle schools and Career Day Presentations at local middle schools. We work closely with the client to identify these opportunities.

Additionally, we encourage our project mangers to join the local cattleman's association or forage grower association. A key person in any community is the local Ag Extension Agent, EMA Resources Inc. believes in establishing a relationship with the surrounding Ag Extension Agents.

A programs success can be dependent on being open and honest with the public. There are several educational brochures published by EPA and the Water Environment Federation that detail the benefits and safety of Biosolids Land Application.

# REGULATORY COMPLIANCE

Assuring compliance with EPA Part 503 Sewage Sludge Regulation and the Brunswick County's DCAR Permit No. WQ0034468 and Non-Discharge Permit No. WQ0034513 will be a team effort. EMA Resources Inc. Technical Staff will work closely with the WWTP Staff to make sure that the Pathogen Reduction Requirement, Vector Attraction Reduction Requirement and Metal Concentration Limits are met prior to any land application event. This will include assuring proper sampling and analytical methods are followed.

In accordance with the RFP information, the Brunswick County will be stabilizing and documenting pathogen reduction of the primary sludge through ATAD digestion (Class A). EMA Resources, Inc. will provide alkaline stabilization if required for the Class B permit.

Vector Attraction Reduction of the anaerobic sludge will be documented via the thirty-eight percent volatile solids reduction option. The lime stabilized WAS will document compliance with a pH of 12 for two hours and not less than 11.5 for an additional twenty-two hours.

The management practices requirements of the Part 503 Regulations along with the buffer zone requirements of Permit No. WQ0034513 will be the responsibility of EMA Resources' Technical Staff and Project Manager.

Monitoring and Reporting requirements will be coordinated by EMA Resources' Technical Staff. Monthly reports will be compiled from analytical and operational data and submitted to the client for review. The annual reports will be compiled from the monthly reports and formatted to meet the regulatory agency desired format.

# PROPOSED EQUIPMENT

EMA Resources Inc. dedicated Project Manager and operational crew which will be assigned to the Brunswick County program will be the Eastern NC HUB based in Tar Heel, NC. This HUB has the following equipment dedicated for operations of its clients.

# Brunswick County Dedicated:

- 1- Project Manager Pickup Truck
- 1- Pumper Truck/Spreader (4500-5000 gallons)

# Eastern NC Hub:

- 3-4 6500 Gallon Aluminum Tankers
- 2- 150 hp MFWD Tractors with Dual Rear Wheels
- 2- 4200 Gallon High Floatation Vacuum/Pressure Pull Tank
- 1- Project Manager Truck
- 1- Senior Operator Pickup Truck
- 3-4 Independent Motor Carrier Road Tractors
- 1- Portable Loading Standing
- 1- Six Inch Self-Priming Pump
- 1- 125 hp Tractor for Mixing (Houle)
- 1- Houle PTO Slurry Pump/Mixer

# Back Up Equipment:

- 3-Mobile Belt Presses (1 meter BDP)
- 1-Self Propelled Mobile Dredge
- 16-6500 Gallon Aluminum Tanker
- 3-150 hp MFWD Tractors with Dual Rear Wheels
- 3-135 hp MFWD Tractors
- 3- 4200 Gallon High Floatation Vacuum/Pressure Pull Tanks
- 2-4500 Gallon Pumper Truck
- 3- Six Inch Self Priming Pump
- 1- Submersible Hydraulic Pump
- 5- Houle PTO Slurry Mixers
- 3- Knight side discharge spreader
- 1- Knight rear discharge spreader
- 19- End dump trailers
- 5- Road Tractors
- 16- Independent Motor Carrier Road Tractors

# **OPTIONAL APPROACHES**

EMA Resources' Director of Operations, Roy Whitaker has been involved with land application on forest land. Current forestry practices are more conducive to cake application. This is a very limited practice in North Carolina due to the spacing of the trees during planting and tract lay out of the tree plantations.

Additional permit limitations for Plant Available Nitrogen application are presently set at 75 pound per year. This low application rate could be lowered with the upcoming changes in the regulations. The Plant Available Nitrogen limit will be based on the realistic yield expectation (RYE) for each site soil series. The fact that North Carolina forest land is comprised of mostly the least productive soils in the state, the application rates are expected to be lowered.

The lower application rates combined with spacing issues and potential specialized equipment may reduce the practicality of forest land application.

EMA Resources Inc. is willing to continue to explore this avenue and work with the Brunswick County if this becomes a viable alternative.

# **CONTINGENCY PLAN**

If at any point the dedicated Project Manager/Pumper Truck/Spreader and the Eastern NC Hub Operational Crew needs additional assistance, One of EMA's additional Road Crews could mobilize to facilitate increased operational capacity. EMA has three additional operations crews within three hours of Brunswick County.

In the event of prolonged periods of inability to land apply the Class A or Class B residuals. EMA Resources, Inc. owns three mobile 1 meter belt presses equipped with self-contained polymer system and conveyor load out. A press can be mobilized and set up and producing dewatered cake within 24 hours' notice. The dewatered cake will be loaded into end dump trailers for transportation to either McGill Compost Facility in Rose Hill or GFL's Sampson County Landfill located in near Roseboro.

Note: Mobile dewatering is best accomplished on the WAS residuals prior to ATAD stabilization.

A second alternative for emergency liquid handling would be liquid transfer and solidification at the GFL Landfill.



# Company Policies and Procedures

#### 1. PROGRAM REQUIREMENTS.

EMA Resources Inc. will ensure that the hazards at our jobsites are evaluated and communicated to its employees and that proper protective measures are provided. Safety is also the responsibility of every employee of this company. The Safety Officer is the sole person authorized to amend these instructions. This program will be maintained in accordance with OSHA Regulations 29 CFR 1910 and 29 CFR 1926. In addition, EMA Resources Inc. will review and evaluate this program on an annual basis or when operational changes occur that require a revision of this document.

## 2. WRITTEN INDIVIDUAL PROGRAMS.

Created:

EMA Resources Inc. will maintain written individual procedures for the types of hazards/issues that our employees will or could potentially be exposed to. Each program will be reviewed/revised on an annual basis or as required by the respective governing OSHA Standard. Each written program will be communicated to all personnel that are affected by it. Each will encompass the total workplace, regardless of number of workers employed or the number of work shifts. They will be designed to establish clear goals and objectives.

# 3. HEALTH AND SAFETY PROGRAM RESPONSIBILITY.

- 3.1. Company Owner Responsibilities. The Owner of EMA Resources Inc. recognizes the importance of safety and has committed to creating a place of employment which is free from recognized hazards. The Owner is ultimately responsible for the safety of all employees of EMA Resources Inc.. The Owner will ensure that all levels of management in the company are delegated the necessary authority to cultivate a safe environment and to take the appropriate actions to correct any deviations or deficiencies relating to safety on the job. The Owner will also be responsible for making available the funds necessary to ensure that employees are provided with effective safety equipment to perform their work.
- 3.2. Safety Officer Responsibilities. The company Safety Officer will be responsible for the day to day management of the company safety program. The Safety Officer will assist the company in remaining in compliance with all applicable health and safety regulations. The Safety Officer will identify and coordinate training sessions to ensure that all employees are equipped with the needed safety skills and knowledge. The Safety Officer will perform inspections of jobsites and facilities and take the appropriate actions to correct any deviations or deficiencies relating to safety on the job. Dave OBrien has been designated as the Safety Officer for EMA Resources Inc..
- 3.3. Project Manager Responsibilities. Project Managers will be responsible for safety on their respective projects. They will be expected to involve the Safety Officer at the beginning of every project even before work has started. Project Managers will take recommendations from and work with the Safety Officer to ensure the safety of employees on the job.
- 3.4. Supervisor Responsibilities. Company Supervisors are responsible for the daily enforcement of the policies and procedures in the EMA Resources Inc. safety program. They will be responsible for all aspects of employee safety in their respective areas. They will conduct periodic safety meetings for their employees. Supervisors will monitor the safety of employees daily and take the appropriate actions to correct any deviations or deficiencies relating to safety on the job. Supervisors will be attentive to employee safety concerns and report them to the Safety Officer. They will keep in communication with the Safety Officer to ensure all employees receive training, refresher training, or retraining as needed.

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3.5. Employee Responsibilities. Employees are the first lines of defense as it pertains to safety at all EMA Resources Inc. jobsites. Employees are expected to abide by all the safety policies and procedures in the company safety program. They will be held responsible for their own safety and are expected to report unsafe conditions to their Supervisors immediately. If the Supervisor is unavailable, they will report safety violations or concerns to the Company Owner or Safety Officer. Employees, if feasible, are also expected to correct safety violations within their immediate areas. They will ensure they report to work in a state of readiness, with the appropriate clothing, and with all issued personal protective equipment. Employees will only operate equipment on which they have been trained and authorized to use. They will report accidents, injuries, and near misses immediately to their Supervisor.

#### 4. JOB SAFETY PLANNING AND ANALYSIS.

- 4.1. Pre-Construction. EMA Resources Inc. is dedicated to ensuring the safety of all employees. For this reason, safety is considered even before contracts are awarded. The Safety Officer will be involved throughout the bid process to ensure that special tasks or procedures requiring additional safety precautions are identified as soon as practicable. In addition, once the contract has been awarded and before the project begins, a preconstruction safety meeting should be held with the Prime or General Contractor, Subcontractors, and other applicable parties to discuss the following:
  - 4.1.1. Safety Management specifics and controls.
  - 4.1.2. Subcontractor requirements.
  - 4.1.3. Job hazard analysis.
  - 4.1.4. Special safety equipment, tools, hazards, or methods that will help in completing the job efficiently and safely.
  - 4.1.5. Safety Training and Orientation.
  - 4.1.6. Job-site safety inspections.
- 4.2. Job Safety (Hazard) Analysis. Job hazard analysis is to be used to make a habit of safe work practices. It is also beneficial as a guideline to follow during new employee training efforts and for quickly identifying the cause of an accident should one occur. Each analysis should be periodically reviewed for possible improvements. All supervisors will be familiar with the proper completion of a Job Safety (Hazard) Analysis. The following basic steps should be followed in preparation of a job hazard analysis:
  - 4.2.1. Select the jobs or specific tasks for hazard analysis.
  - 4.2.2. Consider the task to be performed and inspect the area(s) to identify potential hazards.
  - 4.2.3. Break the job or task into individual components or activities.
  - 4.2.4. Identify the hazards associated with each component activity (ex. Falls, electric shock, chemical exposure, cuts, etc.).
  - 4.2.5. Identify what procedures or equipment are needed to perform each component activity safely (ex. Ladders, scissor lifts, personal protective equipment, etc.).
  - 4.2.6. Apply the analysis to the job.
- ROUTINE SAFETY AND HEALTH INSPECTIONS.

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Routine safety and health inspections of all job sites will be conducted as necessary by the Safety Officer or designated individual. The inspection will be conducted to discover conditions and work practices that may lead to job accidents and industrial illnesses, through specific, methodical auditing, checking, or inspection procedures.

5.1. Inspection elements. The following inspection elements will be checked during safety inspections.

5.1.1.	Floors	Condition, slip, trip, falls
5.1.2.	Aisles	Marking, obstructions
5.1.3.	Stairs	Condition, railings, obstructions
5.1.4.	Ladders	Condition, Metal in electrical areas
5.1.5.	Exits	Obstructions, locked? lighted?
5.1.6.	Ventilation	Adequate, fans guarded? maintained
5.1.7.	Hand tools	Grounded, guarded, pressure switches
5.1.8.	Chemicals	MSDS's, labels, storage, separated
5.1.9.	Compressed gas	Storage, heat sources, labels, training
5.1.10.	Guarding	Installed, over, under, around, between
5.1.11.	Lockout Tagout	Procedures, training, devices, tags
5.1.12.	Eye protection	Used, training, Z-87 rated protectors
5.1.13.	Fire protection	Extinguishers, training, locations
5.1.14.	First Aid	Kits, OSHA logs, training
5.1.15.	Confined Spaces	Marked, training, ventilation, equipment
5.1.16.	Work practices	Unsafe work practices observed? (list)

5.2. Inspection report. The Safety Officer will provide a safety report based on the inspection items noted during the inspection to the appropriate supervisor.

#### 6. SAFETY MEETINGS.

A well-ordered flow of information is essential to a good safety program. The company, through a program of safety meetings at all levels, intends to accomplish the goals of safety awareness, education, and participation.

- 6.1. We are committed to efficient and quality training that increases safety awareness amongst all employees.
- 6.2. Safety meetings for employees will be held on a regular basis to demonstrate management's commitment to accident prevention. Possible agenda items include but are not limited to the review of accidents, safety education, safety inspections, elimination of workplace hazards, new methods of improving job performance, employee training, personal protective equipment, safety incentives, hazard communication, lockout/tagout, respiratory protection, fall protection, and other safety policies.
- 6.3. It is vital to this Workplace Safety Program that all safety training and meetings be carefully documented. Written records of all safety meetings are the responsibility of the Supervisor(s). Training activities are the responsibility of the Safety Officer.

# 1. HAZARD REPORTING.

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All employees are required to report potential or known hazards immediately upon identification. If possible, the hazard should be eliminated immediately when found. Otherwise, the immediate supervisor must be notified and all work where employees are exposed to the hazard must be discontinued until the hazard has been removed.

#### 8. FIRST AID PROCEDURES.

- 8.1. Serious Injuries. Supervisors will be responsible to ensure all employees report serious accidents or injuries immediately to the Safety Officer. Where employees require professional medical attention, the Supervisor will accompany the employee to the hospital or clinic and observe the employee's condition and status. The supervisor will report directly to the Safety Officer the condition of the employee and ensure that proper accident investigation procedures are followed.
- 8.2. Minor injuries. Minor injuries, such as cuts, scratches, bruises, and burns that do not require a doctor's treatment, may be handled by the employee at the jobsite. Recurring first aid injuries will be reported to the Safety Officer to ensure they do not become serious.
- 8.3. First Aid Kits. First aid kits will be maintained at each jobsite by the Supervisor. All employees will be made aware of the location and availability of the first aid kit. The type of first aid kit to be maintained will be for minor emergencies such as cuts and skin abrasions.

# 9. ACCIDENT INVESTIGATION.

Accident investigation is primarily a fact-finding procedure; the facts revealed are used to prevent recurrences of similar accidents. The focus of accident investigation will be to prevent future accidents and injuries to increase the safety and health of all our employees.

- 9.1. Immediate concerns.
  - 9.1.1. Ensure any injured person receives proper care.
  - 9.1.2. Ensure co-workers and personnel working with similar equipment or in similar jobs are aware of the situation. This is to ensure that procedural problems or defects in certain models of equipment do not exist.
  - 9.1.3. Start the investigation promptly.
- 9.2. Accident Investigation Form. An investigation form which details specific company requirements for investigation will be used to gather data to determine causes and corrective actions. As a minimum the form will contain the following areas of concern.
  - 9.2.1. Accident investigation form data.
    - Injured employee's name
    - Date and time of injury
    - Occupation or task being performed when injured
    - Employee's address
    - Sex/age/DOB
    - Social security number
    - Length of service
    - Length of time at specific job
    - Time shift started
    - Overtime length when injury occurred
    - Physician's and hospital name (if transported)

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- Type of injury
- Resulting fatalities
- Description and analysis of accident
- Action taken to prevent recurrence and person
- Employee's statement
- Witnesses' statement
- Person completing form and date
- Person reviewing form and date
- 9.3. Supervisors are responsible for ensuring that employees follow safe work practices and receive appropriate training to enable them to do this. Supervisors will be responsible to fill out accident reporting/investigation requirement forms and to reinforce the EMA Resources Inc. safety program.

## 10. GENERAL SAFETY RULES FOR ALL EMPLOYEES.

The following safety rules are established by this company as general safety rules for all Employees.

- 10.1. Never operate any machine or equipment unless you are authorized and trained to do so.
- 10.2. Do not operate defective equipment. Do not use broken hand tools. Report them to your supervisor immediately.
- 10.3. Never start on any hazardous job without being completely familiar with the safety techniques which apply to it. Check with your supervisor if in doubt.
- 10.4. Make sure all safety attachments are in place and properly adjusted before operating any machine.
- 10.5. Do not operate any machine or equipment at unsafe speeds. Shut off equipment which is not in use.
- 10.6. Wear all protective garments and equipment necessary to be safe on the job. Wear proper shoes. Sandals or other open-toed or thin-soled shoes should not be worn.
- 10.7. Do not wear loose, flowing clothing or long hair while operating moving machinery.
- 10.8. Never repair or adjust any machine or equipment unless you are specifically authorized to do so by your foreman.
- 10.9. Never oil, clean, repair, or adjust any machine while it is in motion.
- 10.10. Never repair or adjust any electrically driven machine without opening and properly tagging the main switch.
- 10.11. Put tools and equipment away when they are not in use.
- 10.12. Do not lift items which are too bulky or too heavy to be handled by one person. Ask for assistance.
- 10.13. Keep all aisles, stairways, and exits clear of skids, boxes, air hoses, equipment, and spillage.
- 10.14. Do not place equipment and materials to block emergency exit routes, fire boxes, sprinkler shutoffs, machine or electrical control panels, or fire extinguishers.
- 10.15. Stack all materials neatly and make sure piles are stable.
- 10.16. Keep your work area, machinery and all company facilities which you use clean and neat.
- 10.17. Do not participate in horseplay, or tease or otherwise distract fellow workers.
- 10.18. Power-truck operators must always safeguard other workers; workers must show courtesy to power-truck operators.

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- 10.19. Floor mounted extension cords should be placed so that they are always flush to the ground.
- 10.20. Frayed or damaged electrical cords should be replaced.
- 10.21. Never take chances. If you're unsure, you're unsafe!
- 10.22. Ask for help, if needed.

## 11. FIRE PREVENTION AND PROTECTION.

Fire and explosion pose a serious risk to our employees during operations involving open flames or high heat sources such as the use of propane or electric torches. Flames can be produced which could quickly become uncontrollable under certain situations. For this reason, all employees will be trained in these procedures:

- 11.1. Basic safety precautions. Heat, open flame, or any operations where sparks may be produced will be permitted only in areas that are or have been made fire safe. When work cannot be moved practically, as in most construction work, the area will be made safe by removing combustibles or protecting combustibles from ignition sources.
- 11.2. Fire extinguishers. Suitable fire extinguishing equipment will be maintained in a state of readiness for instant use. Such equipment may consist of hose or portable extinguishers depending upon the nature and quantity of the combustible material exposed. Employees will not use portable fire extinguishers unless they have been trained.
- 11.3. Housekeeping. All employees will be familiar with the Housekeeping Program and will follow all applicable requirements as stated therein to ensure that flammable or combustible materials do not accumulate in the work area.
- 11.4. Chemical Storage. EMA Resources Inc. will ensure that proper storage locations are provided to employees using chemicals. Flammable chemicals will be stored in approved locations or flammable liquids cabinets designed in accordance with 29 CFR 1910.106. Toxic and corrosive chemicals will be stored apart from flammable chemicals and will be further segregated according to acidity and/or alkalinity. All chemical storage location will be approved by the Safety Officer before use.
- 11.5. Authorization. Employees performing heat or open flame operations must obtain authorization from their Supervisor. Where required, employees will fill out a Hot Work permit.

#### 12. EVACUATION PROCEDURES.

All employees upon receipt of an evacuation order will exit the work area via the Nearest Unaffected Exit. They will proceed to the designated evacuation muster point for the area they were in at the time of the evacuation order, quickly and quietly. They will also upon request, aid their supervisor in taking role or by being a runner.

- 12.1. Egress Routes. All employees will become familiar with the location of all posted egress routes of the facility areas that they frequent and will know the primary and secondary egress routes of their work area.
- 12.2. Evacuation Muster Points. All employees will become familiar with the marked evacuation muster points and will know the primary evacuation muster point of the facility areas that they frequent and for their work area. NO ONE WILL LEAVE AN EVACUATION MUSTER POINT WITHOUT THE EXPRESS PERMISSION OF THE SENIOR EMPLOYEE PRESENT.
- 12.3. Severe Weather Safe Spots. All employees will become familiar with posted Severe Weather Safe Spots and will know the location of the nearest Severe Weather Safe Spot for the areas that they frequent and their work area. Upon the announcement of severe weather, proceed to the designated safe spot.

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- 12.4. Arrival Actions. Upon arrival at an evacuation muster point, each employee will seek out the senior employee present to assure that they have been accounted for. They will also, upon request, aid area supervisors or managers in taking a role or by being a runner.
- 12.5. Visitor Escorts. Each visitor at the facility must always be escorted throughout the facility or jobsite by a company employee. The escort will ensure their visitor is escorted to an evacuation muster point or safe spot as required. Upon arrival at an evacuation muster point, the visitor's name will be forwarded to the employee in charge at the evacuation muster point.

# 13. RECORDKEEPING REQUIREMENTS.

EMA Resources Inc. fully understands that companies with eleven (11) or more employees at any time during the calendar year immediately preceding the current calendar year must comply with the provisions of 29 CFR 1904. Records will be established on a calendar year basis.

- 13.1. EMA Resources Inc. will report to OSHA, as required by 29 CFR 1904.39, all fatalities, hospitalizations, amputations, and losses of an eye as a result of work-related incidents. Incidents that will be reported to the nearest OSHA Area Office include:
  - 13.1.1. Fatalities within eight hours after the occurrence to one or more employees, and
  - 13.1.2. Within 24 hours of learning of any incident which results in hospitalization, amputation, or loss of an eye of an employee.
- 13.2. Log and summary of occupational injuries and illnesses. This employer will:
  - 13.2.1. Maintain a log and summary of all recordable occupational injuries and illnesses by calendar year.
  - 13.2.2. Enter each recordable injury and illness on the log and summary as early as practicable but no later than 7 working days after receiving information that a recordable injury or illness has occurred. For this purpose, form OSHA No. 300 or an equivalent which is as readable and comprehensible to a person not familiar with it will be used. The log and summary will be completed in the detail provided in the form and instructions on form OSHA No. 300.
- 13.3. Supplementary record. In addition to the log of occupational injuries and illnesses (OSHA 300) EMA Resources Inc. will have available for inspection at each of our facilities within 7 working days after receiving information that a recordable case has occurred, a supplementary record for each occupational injury or illness for that establishment. The record will be completed in the detail prescribed in the instructions accompanying Occupational Safety and Health Administration Form OSHA No. 301. Workmen's compensation, insurance, or other reports are acceptable alternative records if they contain the information required by Form OSHA No. 301 (according to OSHA). If no acceptable alternative record is maintained for other purposes, Form OSHA No. 301 will be used or the necessary information will be otherwise maintained.
- 13.4. Annual summary. EMA Resources Inc. will post an annual summary of occupational injuries and illnesses for each facility under our control. This summary will consist of a copy of the year's totals from the form OSHA No. 300A and the following information from that form:
  - 13.4.1. Calendar year covered.
  - 13.4.2. Company Name and establishment address.
  - 13.4.3. Certification signature, title, and date.
  - 13.4.4. A form OSHA No. 300A will be used in presenting the summary. If no injuries or illnesses occurred in the year, zeros will be entered on the totals line, and the form posted.

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- 13.4.5. The summary will be completed by February 1 of each calendar year. This company, or the officer or employee of EMA Resources Inc. who supervises the preparation of the log and summary of occupational injuries and illnesses, will certify that the annual summary of occupational injuries and illnesses is true and complete. The certification will be accomplished by affixing the signature of the employer, or the officer or employer who supervises the preparation of the annual summary of occupational injuries and illnesses, at the bottom of the last page of the summary.
- 13.4.6. EMA Resources Inc. will post a copy of the establishment's summary in each facility. The summary covering the previous calendar year will be posted no later than February 1 and will remain in place until April 30. For employees who do not primarily report or work at a fixed site belonging to this company, or who do not report to any fixed site on a regular basis, we will satisfy this posting requirement by presenting or mailing a copy of the summary during the month of February of the following year to each such employee who receives pay during that month. (NOTE: For multi-establishment employers where operations have closed in some establishments during the calendar year, it will not be necessary to post summaries for those establishments).
- 13.5. Records retention. Records will be retained for 5 years following the end of the year to which they relate.

#### 14. DISCIPLINARY ACTIONS FOR WILLFUL UNSAFE ACTS.

Employee safety is paramount at EMA Resources Inc.. The willful commitment of an unsafe act cannot be condoned. Employees who willfully jeopardize their own or coworkers' safety will be disciplined. The type of discipline can range from a verbal warning to dismissal. The Safety Officer, and supervisory personnel in the administrative chain of any employee may give employees a verbal warning for a known unsafe act or procedural, or operational infraction. Disciplinary action other than a release from shift without pay must be reviewed by the company Owner.

## 14.1. Forms of discipline.

- 14.1.1. Verbal warning. The company Safety Officer, and supervisory personnel in the administrative chain of any employee may give employees a verbal warning for a known unsafe act or procedural, or operational infraction. A second verbal warning in the same shift will be grounds for release from the current work shift without pay. The immediate supervisor will be consulted in all cases and will make the determination for release.
- 14.1.2. Written warning. A written warning will be issued automatically for a second verbal warning for an unsafe act. The written warning will become part of the employee's permanent personnel record.
- 14.1.3. Retraining. It must be considered that the possibility exists that lack of proper training may be a cause of any unsafe act. Supervisors will review the need for employee remedial training in their job skill to enable them to better accomplish their jobs.
- 14.1.4. Dismissal hearing. The employee concerned will be notified of his or her rights in advance of termination. The option of dismissal will be reviewed by the company Owner before termination. The immediate supervisor will be consulted to determine if a lesser form of discipline is warranted. The employees' rebuttal (if provided) will be considered along with the severity of the act, the supervisor's recommendation and any other supporting information provided at the time of the time of the hearing.

Revised:

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#### **OPERATIONS CENTER**

250 Grey Water Road NE Supply, North Carolina 28462

MAILING ADDRESS P. O. Box 249 BOLIVIA, NORTH CAROLINA 28422

TELEPHONE (910) 253-2657 FAX (910) 253-4305

# COUNTY OF BRUNSWICK, NORTH CAROLINA PRICING FORM CONTRACT BIOSOLIDS OPERATIONS FOR WASTEWATER TREATMENT PLANTS

% of Bid Price Attributable to Fuel	%
#2: Removal and Disposal of Class B Biosolids	\$ <u>0,1095</u> per gallon
#1: Removal and Disposal of Class A Biosolids	\$ <i>0.</i> 0895 per gallon

The base fuel price will be established by the Energy Information Administration Diesel Fuel Price for the East Coast of the United States for the week beginning May 30, 2022. This information will be available at the following Web page address: http://www.eia.doe.gov/.

The County will adjust the fuel component of the bid for biosolids disposal by the percentage change in the price for diesel fuel. See ATTACHMENT A of the Specifications for sample calculations.

**20EMARES** 

ACORD.

# CERTIFICATE OF LIABILITY INSURANCE

Client#: 2244171

DATE (MM/DD/YYYY) 5/19/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

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# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 2/28/2022

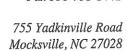
THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED DEPRESENTATIVE OF PRODUCER, AND THE CERTIFICATE HOLDER

REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

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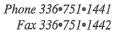


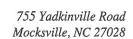
# Loading Log

	¥	
Project:	Date:	WWTP:

Load No.	Vehicle Number	Driver	Meter Start	Meter End	Quantity (gals.) (Tons) (cu. yds.)	Time
1						
2						
3		8			-	
4			-			
5						
6						
7						
8						
9		A###				
10						
11						
12						
13		•				
14						
15						
16						4
17						
18					*	
19						
20			-	4		
21						
22						
23						
24						
25						

Comments:



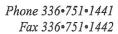




# **Transportation Log**

Project:	Date:	
Company Name:	Driver Name:	
Vehicle Number:	Hub Meter – Stop:	
Hub Meter-Start:		

Load	WWTP	Quantity (gals.) (tons) (cu. yds.)	Time Out	Time At Field	Landowner	Site No. Number	Field	Zone/Miles
1		a						
2								
3								
4			4000					
5			***					
6				-				
7								
8								
9								
10								
11								
12								
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16								<del></del>
17								
18								
19								
20								
21								
22								
23								
24								
25		3		EMA Client / Pink -				





755 Yadkinville Road Mocksville, NC 27028

Applica	ation Lo	g for	Bioso	olids							
Name: _					Project:			Date:			
	or No:										
Alkaline	Stabilizat	ion:	□ Ye	es	□ No						
Site Con	ditions:		Dry		Moist	Wet	Fre	ozen	Miles	to Field	
Weather	Condition	ns:	Fair		Partly Cloudy	Cloudy	Ra	in	man and property of the second		
Tempera	ture:		>90		70 - 90	32 - 70	<3:	2			
Load Number	Vehicle Number	Qua (gals)(tor	intity ns)(cu yds)	WWTP	Landowner	Site	Field Number	Acres	Crop	Application Method (S/SI/I)	Time
1											
2											
3											
4											
5											
6											
7											
8											
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24											
25											
Commer	nts:										
☐ Certifi	ied Operati	or		Signati	ure	Licens	e Number		Op	perator's Signat	ture

Signature License Number
White - EMA Corporate / Yellow - EMA Client / Pink - EMA Project





Providing our municipal and industrial clients with the quality service and personal attention they expect and deserve.

# Company Profile

EMA Resources, Inc.'s management staff has over 75 years of combined experience in every aspect of providing residuals management and land application programs for municipalities and industries throughout the Southeastern United States. The management of EMA Resources, Inc. feels strongly that in a time when the residuals management industry is evolving toward large, national providers, or small operators with limited technical expertise, there is a REAL need for companies dedicated to providing select clients with quality service, personal attention, and particular attention to operating every program within the regulatory compliance standards set by the EPA and State Agencies. It is EMA Resources' mission to remain a regional company, which



is flexible, responsive, and committed to providing our select clients with the highest quality service they expect and deserve. Our industry knowledge and hands-on approach will allow us to provide innovative and cost effective solutions to any of our clients' residuals management needs.

This vision has proven successful for EMA Resources, Inc. and our select clients. EMA Resources, Inc. has remained steadfast in our philosophy of managed growth, which has allowed us to remain flexible, responsive, and committed to providing our clients with the highest quality of service they expect and deserve.

EMA Resources, Inc. provides a wide range of services in providing our municipal and industrial clients with "Turn-key" Residuals Management Programs. The following is a list of services EMA Resources, Inc. provides:

- Liquid Residuals Transportation & Land Application
- Dewatered Residuals Transportation & Land Application
- Marketing & Distribution
- · All Monitoring and Reporting
- Sampling & Analysis
- · Permitting Services
- Alkaline Stabilization and Certification Services
- Mobile Mechanical Dewatering Services

- · Lagoon Cleanout Services
- Lagoon Dredging Services
- Digester Cleaning Services
- Nutrient Management Planning
- · Feasibility Studies & Consulting
- Pump Station Transfer / Bypass
- · Design, Build and Operate Facilities
- Landfill Disposal / Transportation Logistics

# Quality Service · Personal Au

# Featured Services

# **Land Application**

Whether it is liquid or dewatered cake, the beneficial reuse of residuals through land application is the most cost effective management option available to municipal/industrial facilities. Programs are custom designed to meet the generators, farmers and regulatory agencies requirements, while assuring environmental compliance. Turn-key programs include permitting, sampling & analysis, nutrient management planning, transportation & field operations, and monthly & annual reporting.





# **Dewatering Services**

EMA offers mobile dewatering of residuals on an event basis during lagoon & digester cleaning. Additionally seasonal or emergency dewatering services can be provided upon request. Management options for the dewatered residuals are determined by the waste characteristics and facility location. EMA offers long term dewatering alternatives through our design build operate program for permanent facilities. We have the most efficient/modern equipment available to us including low tech dewatering boxes, new generation belt filter presses and high speed centrifuges. Each project has a comprehensive polymer study completed to assure the most cost effective pricing available.

# Lagoon Cleaning/Dredging

EMA offers lagoon cleaning utilizing pto slurry pumps or dredges dependent on the lagoon size and depth. Each cleanout takes into account whether a lagoon can be isolated for residuals removal or must stay in operation during the event. Reliant upon the waste characteristics, solidification with bulking agent or special polymers coupled with excavation of residuals may be a removal alternative. Each project is evaluated to provide the customer the most cost effective management option available.

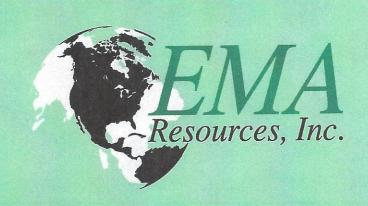




# **Transportation Logistics**

EMA offers a wide array of transportation services of residuals, beginning with turn-key land application programs of liquid or dewatered cake, pump station by-passes/transfers, interplant transfers, landfill disposal and solidification services. Let us provide you with a transportation plan designed specifically for your program.

# ntion • Environmental Integrity



Phone (336) 751-1441 • Fax (336) 751-1442 755 Yadkinville Road • Mocksville, NC 27028 www.emaresourcesinc.com







