

THE OCEAN COUNTY UTILITIES AUTHORITY

REQUEST FOR QUALIFICATIONS

Engineering Services Associated with Implementation of Biosolids Management Plan

The Ocean County Utilities Authority (Authority) is requesting qualifications and statement of interest (QSOI) packages from firms **licensed to practice Professional Engineering in the State of New Jersey, qualified and interested in providing engineering services during design and construction associated with improvements to the biosolids handling processes at the Northern and Central Water Pollution Control Facilities.** The successful firm must have a minimum of **five** years experience in the design of similar facilities. This Request for Qualifications (RFQ) is being issued, and an agreement will be awarded under the “Fair and Open” process pursuant to New Jersey Local Unit “Pay To Play” Law, Chapter 19, P.L. 2004 (as amended by P.L. 2005, c.51), N.J.S.A. 19:44A-20.4 et seq.

All firms submitting a QSOI package are advised of the responsibility to file an annual disclosure statement on political contributions with the New Jersey Election Law Enforcement Commission pursuant to N.J.S.A. 19:44A-20.13 (P.L. 2005, c.271, s.3) if the firm receives contracts in excess of \$50,000 from public entities in a calendar year. It is the firm’s responsibility to determine if filing is necessary. Additional information on this requirement is available from ELEC at 888-313-3532 or at www.elec.state.nj.us.

Anyone who downloads the RFQ from the Authority’s website is requested to notify and register their name and contact information with the Authority via email (scarlson@ocua.com) so they can be notified in the event of any addenda issued.

The successful firm will be responsible for providing **Professional Engineering Design and Construction Services** to the Authority, including, but not limited to, the following:

1. Design of civil, structural, mechanical, process, electrical, instrumentation and controls, anaerobically digested sludge and biosolids conveyance and storage, the use of belt filter presses for dewatering anaerobically digested sludge and other associated engineering disciplines to complete a project of this type. The successful firm may also be selected to provide engineering services during the construction phase of the project.

A. BACKGROUND

1. INTRODUCTION

The Ocean County Utilities Authority (Authority) owns and operates three wastewater treatment plants ranging in size from 20 mgd to 32 mgd and 40 wastewater pumping stations. The service area covers all of Ocean County and a portion of Southern Monmouth County.

The three treatment plants, through its anaerobic digestion process, produce a combined total of approximately 8,500 dry tons per year of biosolids in the form of organic fertilizer (OceanGro). The Northern Water Pollution Control Facility (NWPCF) and the Central Water Pollution Control Facility (CWPCF) each produce approximately 4,000 dry tons while the Southern Water Pollution Control Facility (SWPCF) produces approximately 500 dry tons.

The Authority is seeking a qualified engineering firm of national eminence to prepare a detailed design based upon the recommended improvements presented in the Hazen and Sawyer Report as revised by the Authority.

2. HISTORY OF BIOSOLIDS HANDLING

In March 1981 the Authority commissioned the preparation of a Sludge Management Plan (SMP). After evaluating alternatives, Sludge Drying and Beneficial Reuse was selected because of the potential for sale of the final product and the availability of innovative/alternative (I&A) technology grants from the USEPA for the patented Carver Greenfield Process (Carver Greenfield). An I&A technology grant was awarded to the Authority for the construction of a drying facility, a compaction-granulation facility plus a waste recovery facility and other associated modifications (Carver Greenfield) at the CWPCF.

After construction of Carver Greenfield Process was completed, it was determined that this process was unable to achieve the design thru-put of 50 DT/day. Further, the process was unreliable and very inefficient and expensive to operate. On August 25, 1992, the Authority shutdown the Carver Greenfield Process and the USEPA deemed the Carver Greenfield Process a "failed" technology. Based on the failure of the Carver Greenfield project, the Authority sought and received a "modification and replacement" grant from EPA for \$19,000,000.

The Authority selected a direct dryer system to replace Carver Greenfield Process. Andritz Separation Technologies (Andritz) was the successful bidder on a contract for the construction of the replacement system. Upon completion of the installation of a direct dryer system, the Authority and Andritz negotiated a five-year operating contract, and beginning in 2008 the third five-year operating contract with Andritz commenced.

The key components of the Andritz drying system are:

1. Three belt filter presses to dewater sludge feed from $\pm 6\%$ to $\pm 16\%$ solids.
2. Two direct rotary dryers with evaporative capacity of approximately 25 dry tons per dryer per day.
3. Pellet and air separation systems.
4. Pellet classification and pneumatic conveyance.

5. Air handling systems to recycle approximately 85% of combustion air through the rotary dryers.
6. Air treatment systems to control the final air emissions to meet NJDEP permits.
7. Four fertilizer pellets storage silos capable of storing 600 tons each.

Andritz is responsible for meeting all permit requirements and all operating and maintenance costs associated with processing the biosolids produced by the Authority. Andritz's responsibility is to produce a product meeting certain quality parameters such as size, hardness, bulk weight density, and moisture. The Authority is responsible for the sale and distribution of the final product, called OceanGro Fertilizer.

The Authority makes monthly payments to Andritz based on the processing of 8,500 dry tons per year. Andritz is then compensated at year-end for any volume of biosolids processed above 8,500 tons at an additional contractual rate. Energy costs are a pass-through cost to the Authority providing Andritz operates the facility within contractually prescribed efficiencies.

3. PRESENT BIOSOLIDS HANDLING PROCESS

Biosolids produced at the NWPCF and the SWPCF are thickened to $\pm 8\%$ dry solids content using gravity belt thickeners, and transported to the CWPCF and unloaded into the 650,000 gallon storage tank (8% Thickened Digested Sludge Storage and Blend Tank). Water is added to thin the biosolids to 4-6% solids content to facilitate pumping to the belt filter presses (BFP) located in Fertilizer Manufacturing (FMD) facility. The biosolids are then again dewatered to $\pm 16\%$ solids content using the BFP's followed by evaporative drying. Polymer is used at all four facilities to facilitate thickening. The additional polymer use adds to the hazardous material storage inventory which is regulated by the NJDEP.

4. BIOSOLIDS MANAGEMENT PLAN AND PILOT TESTING

In 2005, CDM was selected to prepare the Biosolids Management Plan (BMP). Beginning in September 2005, the detailed review of the biosolids management practice commenced.

The purpose of the BMP was to evaluate the long-term viability of the current sludge handling practices at the three treatment plants and evaluate future alternatives for biosolids management. As part of the study, the following items were evaluated: the current sludge drying process, liquid biosolids storage capacity, possible sludge dewatering improvements at the NWPCF and SWPCF, the CWPCF dewatering process, alternative biosolids disposal sites, existing sludge hauling equipment, and advanced digestion.

For each step in the sludge handling process, technologies were evaluated to determine if they were applicable to the Authority's operations. Advanced digestion technologies such as acid gas digestion and thermophilic digestion were evaluated, as well as continuing with Conventional Mesophilic Digestion. Dewatering with either centrifuges or belt filter presses was evaluated, as well as improvements to biosolids storage, loading, and unloading.

A comprehensive project was developed which included 13 alternatives. Expansion of solids handling capacity to be implemented at all three treatment plants for quantities anticipated at the end of the planning horizon of 2025 were considered, but not in a phased approach. The Authority, in consultation with CDM, decided to implement a phased approach. The long-term plan is to defer implementing improvements to the digestion system until reduced detention times and decrease in volatile solids destruction necessitate planning for expansion.

The short-term plan, which resulted from the conclusion that by modifying the manner in which the Authority processes its biosolids, significant cost savings in the form of decreased operating costs and increased dryer capacity may be achieved. This led to the decision to pilot test two technologies, belt filter presses, and centrifuges for dewatering. Based on the existing dryer system capacity, an average of 21% total solids must be achieved during dewatering in order to avoid having to construct a third dryer train, a \$15 million capital expenditure.

In 2007, M&E/AECOM was selected to manage the pilot testing effort and began work in February 2007. This effort included a table top evaluation of dewatering technologies, preparation of pre-testing protocol, preparation of an RFP to engage pilot dewatering vendor(s), management of the pilot testing effort including sampling, and preparation of the pilot study report.

The Authority, through its consultant M&E/AECOM selected an Ashbrook trailer mounted 0.6 meter Winklepress and skid mounted Alfa Laval ALDEC 406 centrifuge for the pilot testing. Since OceanGro is a Class A 100% organic fertilizer, there are concerns that introducing cake biosolids which are too dry to the rotary dryers may negatively impact the Class A product. It is important to retain the current quality of the pellet fertilizer. It was found that the BFP performed comparable to the centrifuge. The centrifuge did not perform to the limits which were expected. A summarization of the results from pilot testing is presented below:

Parameter	SWPCF		CWPCF		NWPCF	
	BFP	Centrifuge	BFP	Centrifuge	BFP	Centrifuge
% Cake TS	23.8	26.1	22.1	22.4	25.3	25.9
Poly Dose (lb. active/DS)	15.8	26.7	30.9	33.7	30.4	34.3
% Solids Recover	97.7	98.2	97.4	98.8	98.2	98.7
Amp Draw	15.4	31.6	13.4	31.9	16.8	30.2
Throughput (lb/hr)	574.7	323.8	672.1	360.1	776.0	455.1

The M&E/AECOM final report (M&E Report) which was completed in October 2007 recommends that belt filter press technology be used and the Authority has accepted that recommendation. The project will therefore proceed with the use of belt filter presses as dewatering equipment.

5. FEASIBILITY STUDY AND CONCEPTUAL DESIGN

In 2008, the Authority selected Hazen and Sawyer (H&S) to conduct a feasibility study to develop a conceptual plan for biosolids management based on the studies completed by CDM and M&E/AECOM. H&S completed the feasibility study (H&S Report) in August 2009. The conceptual plan included in this study as modified by the Authority will be utilized as a basis for designing improvements to the solids handling system.

B. REQUIREMENTS

The Authority is considering installing belt filter presses, a storage silo and a truck loading station at the NPWCF, a truck unloading station and storage silos at the CWPCF. The Authority will review the submitted QSOI packages and select firms to participate in the Request for Proposal (RFP) process.

It is anticipated that no interviews will be conducted during the qualification phase. However, the respondents should show demonstrative experience of the firm and personnel in the work described, especially in all aspects of the handling of anaerobically digested sludge dewatering, conveyance and storage.

The Authority recognizes the significant effort and cost required in preparing responses to the Request for Qualifications and therefore would like to discourage firms who cannot demonstrate relevant experience from responding to this RFQ.

C. ALL SUBMISSIONS SHALL INCLUDE THE FOLLOWING MINIMUM INFORMATION:

1. Name of the individual(s) to be assigned to perform the tasks.
2. The QSOI which shall also address the following requirements.
 - a. Provide a list of at least five (5) representative projects that demonstrate applicable experience and qualifications of the firm and individuals who will be assigned to the project. Preferably the work should have been performed in the last five years.
 - b. A list of five (5) professional references including contact names, addresses, telephone numbers, and a brief project description. All contacts must have direct knowledge relating to your experience in the requested service.
 - c. Location of office where the work will be performed.
 - d. If sub-consultants will be used provide a list of projects that will demonstrate relevant experience.

3. A statement concerning the ability of the firm to perform tasks assigned by the Authority in a timely fashion.
4. Professional licenses and certifications held by the individual(s) to be assigned.
5. A description of the support staff available to the individual(s) to be assigned.
6. If the firm is a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the proposer, in compliance with P.L. 1977, Chapter 33, must submit, with their RFQ package, the Ownership Statement Form (Attachment A), setting forth the names and addresses of all stockholders or individual partners who own 10% or more of its stock or interest. If one or more such stockholder or partner is itself a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the stockholders holding 10% or more of that corporation's stock, or the individual partners owning 10% or greater interest in that partnership, as the case may be, shall also be listed.
7. If selected, a copy of your New Jersey Certificate of Employee Information Report Approval pursuant to N.J.A.C. 17:27-1.1 et. seq. or a completed Form AA-302 Initial Employee Information Report will be required.
8. If selected, a copy of your Business Registration Certificate as required pursuant to section 1 of P.L. 2001, c.134 (C.52:32-44 et al.) or subsection e. or f. of section 92 of P.L. 1977, C110 (C.5:12-92) will be required.
9. If selected, you will be required to comply with the "Mandatory Equal Employment Opportunity" requirements of N.J.S.A. 10:5-31 et. seq. and N.J.A.C. 17:27.
10. If selected, you will be required to enter into an Agreement with the Authority (Sample Agreement-Attachment B).
11. Ability to obtain Certificates of Insurance issued by an insurance carrier licensed in the State of New Jersey in accordance with the Authority's Insurance Requirements (as outlined in the Sample Agreement-Attachment B). If you intend to request an exemption from any of these requirements, please include such request with your submittal.

D. SUBMISSION REQUIREMENTS:

All responses to this Request for Qualifications (RFQ):

1. Will be opened publicly in the Authority's Public Meeting Room at 501 Hickory Lane, Bayville, New Jersey, commencing at **2:00 p.m.**, prevailing time, **on August 10, 2010**.
2. Must be signed and must be enclosed in a sealed envelope bearing the name and address of the submitter, the name of this RFQ, and the RFQ due date on the outside of the envelope.
3. Responses which are to be hand delivered the day of the opening must be taken and presented to the **Tariq M.S. Siddiqui, P.E.** (or designee), before the time the responses to this RFQ are called for.
4. Responses to this RFQ which are to be mailed, shall be mailed to:

Tariq M.S. Siddiqui, P.E.
Director, Engineering and Construction
Ocean County Utilities Authority
PO Box P
Bayville, NJ 08721

and must be received prior to **2:00 p.m.**, prevailing time on the date on which they are to be opened.

5. The Authority will not be responsible for late mail deliveries and no responses to this RFQ will be accepted by the Authority if received after the time stipulated above.
6. An original and four (4) copies of your response to this RFQ must be submitted for your response to be deemed complete.

OWNERSHIP STATEMENT

If the firm / individual is a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the firm / individual, in compliance with P.L. 1977, Chapter 33, shall submit, with their QSOI Package, the following statement setting forth the names and addresses of all stockholders or individual partners who own 10% or more of its stock or interest. If one or more such stockholder or partner is itself a corporation, partnership, limited partnership, limited liability corporation, limited liability partnership or a subchapter S corporation, the stockholders holding 10% or more of that corporation's stock, or the individual partners owning 10% or greater interest in that partnership, as the case may be, shall also be listed.

IF NONE, SO STATE

INDIVIDUAL

ADDRESS

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



**THE OCEAN COUNTY UTILITIES AUTHORITY
501 HICKORY LANE
BAYVILLE, NEW JERSEY 08721**

AGREEMENT NO. **XX-XXX-00-000.00**

THIS AGREEMENT made this **00** day of **XXXXXXXX, 0000**

BETWEEN: THE OCEAN COUNTY of UTILITIES AUTHORITY,
a public body politic and corporate
the State of New Jersey, having its principal offices at
501 Hickory Lane,
Bayville, New Jersey 08721

(hereinafter referred to as "AUTHORITY")

AND: **(NAME of Professional Services Provider)**
(ADDRESS of Professional Services Provider)

(hereinafter referred to as "**XXXXXXXX**")

WITNESSETH:

WHEREAS, the AUTHORITY has a continuing need for the services of a **(Type of Service)**; and

WHEREAS, the AUTHORITY has on **(Date)**, adopted Resolution No. **00-0000**, authorizing **(Name of Professional Services Provider)** to represent the AUTHORITY as **(Type of Service)**, a copy of which is attached hereto and marked as Exhibit **A**;

IT IS THEREFORE AGREED that the AUTHORITY and the **XXXXXXXX**, for and in consideration of the undertakings hereinafter mentioned, mutually covenant and agree on the following:

SECTION 1 - SCOPE OF SERVICES

1.1 The XXXXXXXX agrees to perform (Type of Service) services for the AUTHORITY including (List specific tasks related to specific services).

1.2 The XXXXXXXX shall perform such additional professional services and secure the services of other professionals as shall be requested by the AUTHORITY from time to time.

SECTION 2 - FEES AND PAYMENTS

2.1 The fees for the professional services of the XXXXXXXX under the scope of this Agreement shall be at the following hourly rates or portions thereof times the established billing rate of each classification serving the needs of the AUTHORITY. The hourly rates currently in effect, which will not be exceeded without formal amendment to this Agreement, are as follows:
(List Position/Service and Rate)

2.2 Invoices for payment for services performed shall be submitted by the XXXXXXXX on AUTHORITY voucher forms in accordance with the AUTHORITY's "Billing Instructions for Professional Services" dated February 2010, a copy of which is attached hereto and marked as Exhibit B and made a part of this Agreement, or any subsequent revision thereto concerning the submission of vouchers. It is contemplated that all billing for professional services, including the services of approved other (type of service) consultants, shall be submitted on a monthly basis.

SECTION 3 – MISCELLANEOUS

3.1 Indemnification

The XXXXXXXX shall indemnify and save harmless to the fullest extent permitted by law, the AUTHORITY, the AUTHORITY'S officials, agents and employees, from and against all losses, claims, damages, expenses or judgments of every nature and description, including claims for bodily injury and property damage, brought or recovered against them but only to the extent caused by the negligent acts or omissions of the XXXXXXXX, regardless of whether or not such loss, claim, damage or expense is caused in part by a party indemnified hereunder.

3.2 Ownership and Use of Documents

3.2.1 All pertinent data, reports, and correspondence prepared and/or utilized by the XXXXXXXX for the accomplishment of this service shall be available for review by the AUTHORITY or its designated agent upon request.

3.2.2 Any reports, data or instruments of service prepared by the XXXXXXXX under this Agreement shall not be made available to any individuals or organizations by the XXXXXXXX without prior written approval of the AUTHORITY. At the conclusion of each assignment and acceptance by the AUTHORITY, the XXXXXXXX shall collate all such documents and forward a copy of same to the AUTHORITY.

3.2.3 Except as specifically authorized by this Agreement or as otherwise approved by the AUTHORITY, information and other data developed or acquired by or

furnished the XXXXXXXX in the performance of this Agreement shall be used only in connection with the work under this Agreement.

3.3 Successors and Assigns

This Agreement and all of the covenants hereof shall inure to the benefits of and be binding upon the AUTHORITY and the XXXXXXXX, respectively, and their successors, assigns, and legal representatives. Neither the AUTHORITY nor the XXXXXXXX shall have the right to assign, transfer or sublet their interests or obligations hereunder, without the written consent of the other.

3.4 Audit

The XXXXXXXX agrees to permit the AUTHORITY, or its designated agent, to audit the XXXXXXXX accounts that pertain to this Agreement.

3.5 Discrimination

3.5.1 The parties to this Agreement do hereby agree not to discriminate in employment and agree to abide by all anti-discrimination laws including those contained within N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27, and all rules and regulations issued there under.

3.5.2 The AUTHORITY and the XXXXXXXX agree that the provisions contained in the attachment to this Agreement entitled Exhibit C "Mandatory Equal Employment Opportunity Language," are hereby made a part of this Agreement. In said supplemental conditions, the XXXXXXXX is referred to as the "Contractor."

3.6 Conflicts

3.6.1 Notwithstanding any other provisions of this Agreement during the term of this Agreement, the XXXXXXXX agrees to forego entering into consulting or other contractual arrangements with any firm or organization, the result of which may give rise to an actual or apparent conflict of interest with respect to the work being performed under this Agreement. The XXXXXXXX shall insure that all employees who are employed under this Agreement abide by the provision of this clause. If the XXXXXXXX believes with respect to itself or any such employee that any proposed consultant or other contractual arrangement with any firm or organization may involve a possible conflict of interest, the XXXXXXXX shall obtain the written approval of the AUTHORITY prior to execution of such contractual arrangement.

3.6.2 In the event of any conflict between that stated in this Agreement and in any other documents, the terms and conditions of this Agreement shall prevail.

3.7 Insurance

3.7.1 The (Type of Service) shall not commence until the XXXXXXXX has obtained, at their own expense, all of the insurance as required hereunder, and such insurance has been approved by the Authority; nor shall the XXXXXXXX allow any Subcontractor to commence work on any projects until all insurance required of the Subcontractor has been so obtained and approved by the XXXXXXXX. Approval of insurance required of the XXXXXXXX will be granted only after submission to the Authority of original Certificates of Insurance signed by authorized representatives of the insurers or, at the Authority's request, certified copies of the required insurance policies.

3.7.2 The XXXXXXXX shall require all Subcontractors to maintain during the term of the Agreement, commercial general liability insurance, business auto liability insurance and workers compensation/employers liability insurance at the same limits required of the XXXXXXXX.

3.7.3 All insurance policies required hereunder shall be endorsed to provide that the policy is not subject to cancellation, non-renewal, or material reduction in coverage until thirty (30) days prior written notice has been given to the Authority.

3.7.4 No acceptance and/or approval of any insurance by the owner shall be construed as relieving or excusing the XXXXXXXX or the XXXXXXXX's Surety from any liability or obligation imposed upon either or both of them by provisions of this Agreement.

3.7.5 Any deductibles or retentions of \$5,000 or greater shall be disclosed by the XXXXXXXX, and are subject to the Authority's written approval. Any deductible or retention amounts elected by the XXXXXXXX, or imposed by the XXXXXXXX's insurer(s) shall be the sole responsibility of the XXXXXXXX.

3.7.6 All insurance coverages must be underwritten by insurers licensed to do business in the State of New Jersey and be acceptable to the Authority. The insurers must also have a policyholders' rating of "A-" or better, and a financial size of "Class VII" or better in the latest evaluation by A. M. Best Company.

3.7.7 If the Authority is damaged by the failure or neglect of the XXXXXXXX to purchase and maintain insurance as described and required herein, without so notifying the Authority, then the XXXXXXXX shall bear all reasonable costs properly attributable thereto.

3.7.8 The XXXXXXXX shall purchase the following insurance coverages for not less than the limits specified below or required by law, whichever is greater:

A. Commercial General Liability Insurance or its equivalent for bodily injury, personal injury, and property damage including loss of use, with minimum limits of:

- \$1,000,000 each occurrence
- \$1,000,000 personal and advertising injury
- \$2,000,000 general aggregate
- \$1,000,000 products/completed operations aggregate

This insurance shall include coverage for all of the following:

- General Liability
- General aggregate limit
- Liability arising from premises and operations
- Liability arising from the actions of independent contractors
- Contractual liability including protection for the XXXXXXXX from bodily injury and property damage claims arising out of liability assumed under this Agreement.

B. Business Auto Liability Insurance or its equivalent with a minimum limit of \$1,000,000 (CSL) Bodily Injury and Property Damage Liability per accident and including coverage for the following:

- Liability arising out of the ownership, maintenance or use of any auto
- Auto non-ownership and hired car coverage

C. Workers Compensation Insurance or its equivalent with statutory benefits as required by any State or Federal Law, including standard “other states” coverage; Employers Liability Insurance or its equivalent with minimum limits of:

- \$500,000 each accident for bodily injury by accident
- \$500,000 each employee for bodily injury by disease
- \$500,000 policy limit for bodily injury by disease

D. Professional Liability: Professional Service Contractors (such as, but not limited to Architects, Engineers, Attorneys, Physicians, and Risk Management Consultants) shall provide the Authority with a Certificate of Insurance evidencing professional liability and/or malpractice insurance with minimum limits of \$2,000,000 per occurrence, \$2,000,000 annual aggregate.

E. Umbrella Excess Liability or Excess Liability Insurance or its equivalent with minimum limits of \$1,000,000 per occurrence, \$1,000,000 aggregate.

3.8 Term

This Agreement between the AUTHORITY and the **XXXXXXXXXX** shall be effective as of **(Date)**, and until **(Date)**.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement effective the day and year first above written.

THE OCEAN COUNTY UTILITIES AUTHORITY

By: _____

(print name)

ATTEST:

(print name)

(Name of Professional Services Consultant)

By: _____

(print name)

ATTEST:

(print name)