

REQUEST FOR TECHNICAL PROPOSALS OECC Facilities Plan

INTRODUCTION

Delaware County Regional Sewer District (DCRSD) seeks professional engineering firms to provide technical services for evaluation of the Olentangy Environmental Control Center (OECC) wastewater reclamation facility, recommendations for process and equipment upgrades, and production of a Facilities Plan based on the study at OECC. The Facilities Plan will be followed by Preliminary and Final Engineer Design Services and other professional engineering services as required.

The OECC Facilities Plan is intended to further evaluate and refine the recommendations provided for in the 2017 Master Plan. The 2017 Master Plan recommended a significant number of projects to modernize or expand capacity at the plant. In order to ensure that all future improvements are appropriately coordinated with all aspects of the facility, a total Facility Plan for the OECC is recommended prior to initiation of any other significant design work at the OECC. The Facilities Plan shall look for overlapping improvements that can simultaneously address issues that have been identified in the 2017 Master Plan with a focus on sustainability, process optimization and equipment reliability.

Consultants must follow the procedures outlined in this request as well as the revised Qualifications-Based Selection Procedure for Professional Design Services updated on 12/13/2016. Refer to the "Consultant Prequalification Procedure" link located at <http://www.co.delaware.oh.us/sanitary>. Consultants need not be prequalified in order to respond to this RFP.

The Delaware County Regional Sewer District (DCRSD) office, 50 Channing Street, Delaware, Ohio 43015, will receive Technical Proposals until **2:00 pm (EST) on Thursday, April 20, 2017**. Proposals received after the date and time due will not be considered. All questions should be directed to Tiffany Maag by email at tmaag@co.delaware.oh.us.

An optional pre-proposal meeting and site walk will occur at 10:00 am (EST) on Friday, March 31, 2017, beginning at the OECC Administration building located at 10333 Olentangy River Road, Powell, Ohio. The initial part of the meeting will include a brief overview by DCRSD followed by a site walk.

In order to receive consideration, questions about the proposals or the project must be received no later than 4:00 p.m. (EST) on Thursday, April 11, 2017. DCRSD will transmit written addenda in response to any questions that DCRSD considers necessary to be answered for clarification purposes. Oral statements may not be relied upon and will not be binding or legally effective.

Project Background

OECC consists of a north plant and a south plant. OECC North was commissioned in 1979 and was designed for an average flow of 1.5 MGD and a peak flow of 4.5 MGD. OECC South was commissioned in 1994 and was designed for an average flow of 4.5 MGD and a peak flow of 13.5 MGD. OECC North was taken offline with the completion of OECC South in 1994. OECC is currently permitted to discharge 6.0 MGD (with the north plant off-line).

Treatment processes employed by OECC include raw sewage grinding and pumping, activated sludge aeration, final clarification, tertiary filtration, UV disinfection, post-aeration, aerobic digestion, and sludge thickening and dewatering. The tertiary filtration, UV disinfection, post-aeration, aerobic digestion, sludge thickening and dewatering processes are shared between OECC North and South. OECC North was not demolished after decommissioning and still remains connected even though flow is not sent through it. OECC South is currently the only treatment train in service; however, both plants were evaluated as part of the 2017 Master Plan. Figures 1-3 illustrate site layout as well as liquid and solid stream process diagram.



Figure 1 - Olentangy Environmental Control Center

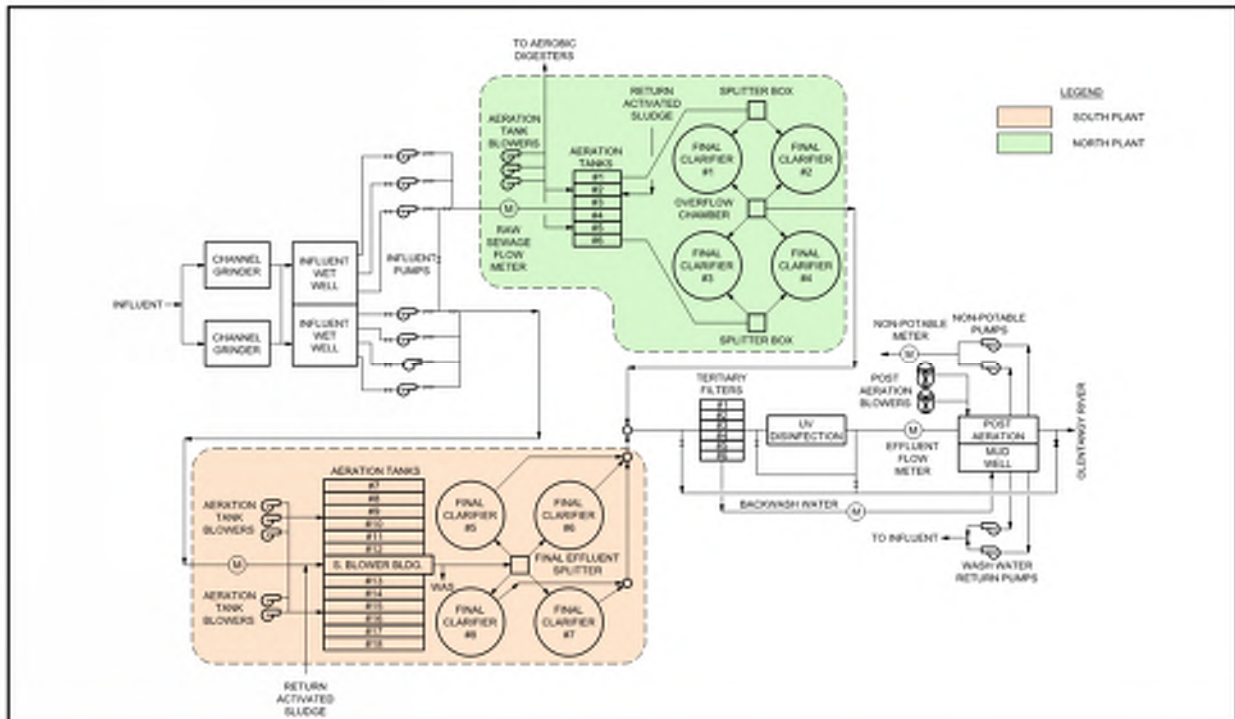


Figure 2 - OECC Liquid Stream Process Flow Diagram

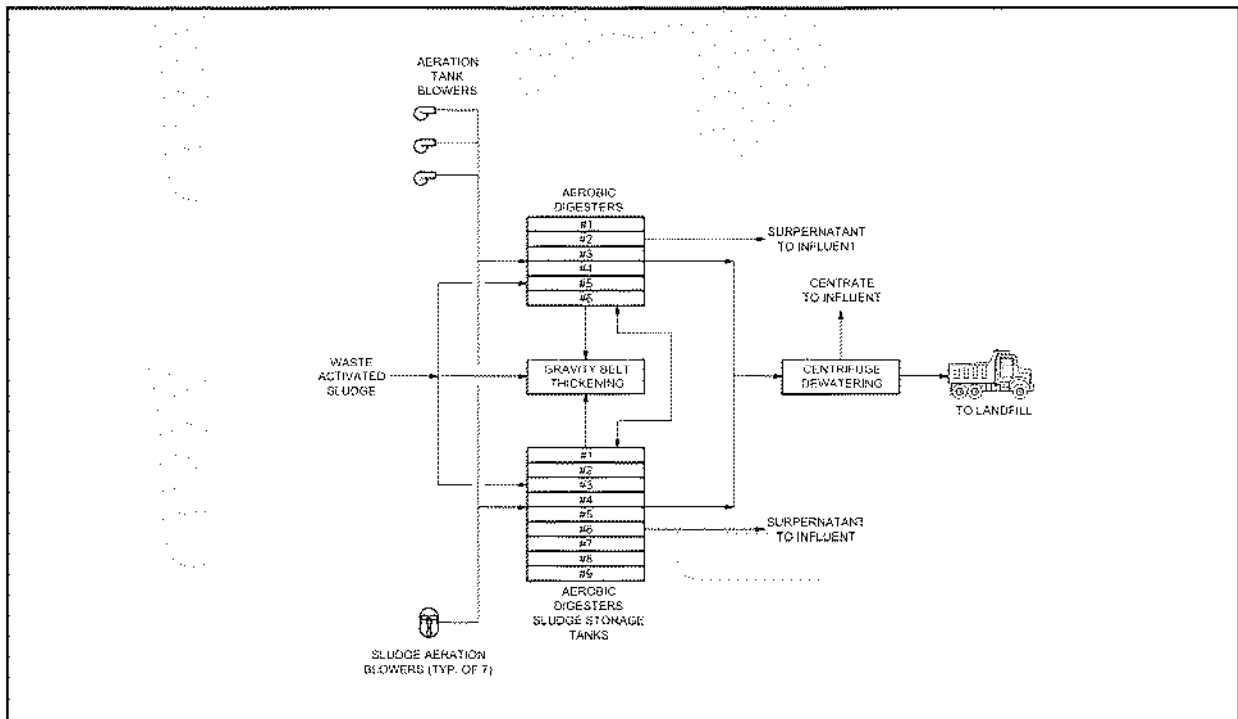


Figure 3 - OECC Solids Stream Process Flow Diagram

The recent 2017 Master Plan performed a condition assessment that recommended the critical treatment areas of the OECC that need improvements. These critical areas include:

- New Headworks/Screening facility;
- South Plant Aeration improvements;
- Filter Improvements;
- North Plant Rehabilitation (increases capacity from 4.5-6.0 MGD);
- Upgrades of outdated electrical equipment;
- Additional sludge dewatering equipment and storage facilities.

Key findings obtained from the condition and capacity assessment of OECC North and South are summarized as follows:

- The influent sewer and raw sewage grinding and pump facility have a limiting hydraulic capacity to receive peak flows;
- OECC does not employ a screening or grit removal process;
- OECC North is offline and growth projections indicate that this capacity will be needed in the next 5-10 years;
- Due to the general condition and age of equipment installed in OECC North, substantial repair or replacement of equipment is recommended. An MCC upgrade project was recently completed on the North Plant without equipment modifications;
- The tertiary filters have operational problems. High filter headloss and recycle flows from excessive backwashing are major issues. Backwash water is temporarily being directed to the north plant aeration basins during significant flow events to reduce hydraulic issues associated with high flow periods;
- Dewatered sludge load out capacity is much slower than desired;
- Motor soft starters and variable frequency drives (VFD) are reaching the end of their useful lives and will require replacement.

Instrumentation and control system needs are summarized as follows:

- The existing programmable controllers manufactured by Allen Bradley are obsolete and are being phased out;
- District staff reuse replacement parts from existing panels to keep the existing aeration tank mixer control panels running;
- Desktop PC's, their operating systems, and SCADA software have relatively short life cycles and will require a near-term upgrade;

PROJECT DESCRIPTION

The improvements set forth in the 2017 Master Plan results in significant capital improvement investments by the DCRSD related to OECC, totaling approximately \$30 million. It was determined that completion of a Facilities Plan prior to the preliminary/final engineering of the improvements could provide a more holistic approach to the facility improvements. This would in turn allow for implementation of improvements to provide overlapping benefits and simultaneously address multiple issues at the plant. At a minimum the improvements should include:

- Energy efficiency (i.e. through aeration improvements);
- Biological nutrient removal optimization;
- Strategy to address future regulations with existing infrastructure;
- Repurposing of existing north plant and sludge tanks; and
- Innovative ideas.

Due to the age of the facility and the initial cost estimation of the baseline upgrades, the submitting firm is encouraged to review the findings of the 2017 Master Plan which provides a higher level review of the facility. DCRSD is interested in looking at the baseline improvements outlined in the Master Plan, as well as innovative ideas which improve the overall operations of the facility. DCRSD is interested in maximizing the property footprint for the most efficient and cost effective improvements that keep safety and treatment performance at the forefront.

The invasive nature of the upgrades on the existing treatment process will require a systematic approach to improvements in order reduce and/or manage the impact to ongoing treatment processes during construction. Implementation of risk management techniques to minimize the potential for utility conflicts and unknown site conditions should be considered. The scope of this project should provide the DCRSD with work products that will map out the approach to upgrades for the OECC and may include technical data, calculations, schematic layouts, audit data, and models. Recommendations for process improvements achieved operationally, through equipment and system upgrades, and combinations of both are anticipated as final work products.

The submitting firm shall provide their approach to the study, review, analysis and planning of the facility upgrades. Project schedule, and anticipated deliverables to meet the County's needs should be included. The section titled "CONTENT OF CONSULTANT'S RESPONSE" in this RFP provides the requirements for the response.

EXISTING DOCUMENTS

DCRSD will provide existing record documents such as as-builts of OECC including improvement projects, the 2017 Master Plan and Technical Memorandums associated with the Master Plan, on the District's website at the following link: <http://www.co.delaware.oh.us/sanitary/newweb/rfp.asp>

OVERVIEW OF PROCESS

DCRSD uses a Qualifications Based Selection Process conforming to the requirements of Ohio Revised Code Sections 153.65 to 153.71. The process is as follows:

CONTENT OF CONSULTANT'S RESPONSE

A firm's proposal response shall include, but is not limited to, the following:

1. Company Name and background on company.
2. Names and experience of key personnel that will be assigned to perform the services. Provide organizational chart for the proposed project team for each contract to be considered for. Provide resumes for the key project staff members (3 page maximum per resume).
3. List of completed projects for DCRSD and/or similar to the proposed project in which the team is wishing to be considered for and has previously participated in; include detailed information on project description and key personnel.
4. A description of the firm's project strategy. The description shall include:
 - a. Understanding of the project.
 - b. Keys to a successful project
 - c. Innovative and cost savings ideas for the project
5. Project Schedule indicating the time frame for work tasks, review time, milestones, etc.
6. Three (3) public or private agency references to contact regarding the firm's past performance, preferably on similar projects.

One (1) original and four (4) copies of the proposal are to be submitted for evaluation, along with a digital copy of the proposal on CD/DVD. There is a thirty (30) page total limit (one sided) on the proposal (15 pages double sided).

EVALUATION

The Proposal Evaluation Committee shall be determined by the Executive Director or his/her designee. Each member of the Proposal Evaluation Committee shall evaluate all firms. Individual evaluations shall be combined into a consensus evaluation. The average score for each of the criteria shall be totaled for a composite score.

EVALUATIONS CRITERIA

The Proposal Evaluation Committee shall evaluate the proposals based on the following criteria:

Experience, technical training and education of the personnel assigned to perform the work	15 POINTS
Competence to perform the required services as indicated by past projects	20 POINTS
Project Approach and Strategy	50 POINTS
Project Schedule	5 POINTS
Innovative Ideas/Approach	10 POINTS
TOTAL POINTS	100 POINTS

Prior to completing evaluations, the Proposal Evaluation Committee may request revisions or clarification of the proposals, provided the same opportunity to revise or clarify is given to all firms.

The scoring process listed above will be used to short-list firms for an interview. The interview shall include a review of the firms' qualifications, technical approach, and innovative ideas.

CONSULTANT RECOMMENDATION

Once the Proposal Evaluation Committee has conducted the short-listed firm interviews and ranked the firms, the committee shall prepare a letter notifying each firm of its findings. DCRSD may then enter into contract negotiations with the highest ranked firm.

FINAL CONTRACT NEGOTIATIONS AND AWARD

DCRSD shall establish the proposed terms and scope of services for the project's contract. Should the negotiations with the highest ranked firm be unsuccessful, then they shall be terminated and negotiations shall begin with the next highest ranked firm. This process shall continue until a contract is successfully negotiated. If all of the negotiations are unsuccessful, all of the firms that submitted proposals will be notified that the selection process has been terminated. DCRSD reserves the right to terminate the final negotiations at its discretion.