

Memorandum



Date: May 5, 2026

To: Honorable Chairman Anthony Rodriguez
and Members, Board of County Commissioners

From: Daniella Levine Cava *Daniella Levine Cava*
Mayor

Subject: Request for Additional Expenditure Authority to Contract for Cryogenic Oxygen
Plant Maintenance and Technical Support Services (Group 1)

Agenda Item No. 8(P)(1)

Executive Summary

This item requests additional expenditure authority to allow the Water and Sewer Department (WASD) to continue purchasing maintenance, technical support, training, and equipment upgrade services necessary for the operation, maintenance, and rehabilitation of seven cryogenic oxygen plants that produce high-purity oxygen for the treatment of wastewater at WASD's three regional wastewater treatment plants (WWTPs).

Cryogenic systems provide pure oxygen for WASD's wastewater treatment facilities and are a critical component of the activated sludge treatment process. The oxygen sustains aerobic microorganisms responsible for breaking down organic contaminants and reducing biochemical oxygen demand in wastewater. Without a continuous supply of oxygen, these microorganisms cannot survive or function effectively. The lack of oxygen would significantly hinder the biological treatment process leading to partially treated effluent wastewater and permit violations. Lack of oxygen treatment creates a significant risk that untreated wastewater could be released into receiving waters. Such conditions would place public health and the environment at risk and would violate WASD's operating permits issued by the Florida Department of Environmental Protection (FDEP).

The need for additional expenditure authority is primarily due to unanticipated emergency repairs and operational needs associated with aging cryogenic oxygen production infrastructure. Following the catastrophic failure of the Vacuum Pressure Swing Adsorption (VPSA) system in March 2025 at the Central District WWTP, WASD was required to enter emergency operations with cryogenic unit repairs and liquid oxygen purchases to maintain regulatory compliance and continuous wastewater treatment operations. Purchasing liquid oxygen would cost the County over \$2 million annually and require vendors to provide 24-hour support. The most reliable and economically feasible solution is the reactivation and rehabilitation of WASD's 40 year-old cryogenic air separation units (ASUs). Through this contract, WASD has been able to reinstate two retired ASUs at the Central District WWTP.

Maintaining a reliable oxygen supply is therefore essential to sustaining wastewater treatment operations and protecting the integrity of the biological treatment process. Any disruption to oxygen generation would jeopardize compliance with operating permits and compromise public health and environmental protection. Approval of this item will allow WASD to maintain continuous wastewater treatment operations, preserve the integrity of its biological treatment systems, and sustain a resilient wastewater treatment system for Miami-Dade County.

Recommendation

It is recommended that the Board of County Commissioners (Board) approve additional expenditure authority under *Contract No. EVN0000429, Cryogenic Oxygen Plant Maintenance and Technical Support Services (Group 1)*, in the amount of \$6,297,661 for WASD.

Background

This contract was approved by the Board through Resolution No. R-874-24 for a five-year term on October 1, 2024. An Invitation to Bid was issued under full and open competition on April 16, 2024.

However, this is a niche market; as such, during the competitive solicitation process, only one bid was received. Through Resolution No. R-878-24, approval of a designated purchase was requested as the sole bid was deemed non-responsive by the County Attorney's Office (CAO). The bidder deviated from the standard County terms and conditions of the solicitation and conditioned its pricing. The bidder agreed to remove all additional terms included with their bid and provides the cryogenic oxygen plant maintenance and technical support services in accordance with all terms and conditions of the contract. The contract provides specialized maintenance, technical support, training, and emergency repair services for seven cryogenic oxygen plants located at three WWTPs operated by WASD. These services include field engineering support for start-up operations, equipment upgrades, planned maintenance, and emergency repairs necessary to ensure continuous oxygen production for wastewater treatment.

The need for additional expenditure authority is primarily attributable to unanticipated restoration efforts for aging cryogenic air separation units (ASUs) that were previously abandoned and slated for demolition. Approximately \$1.6 million has been expended to date to restore ASU #2, and approximately \$915,000 has been expended to date on the restoration of ASU #1, both of which are more than 40 years old. These units were reactivated in response to ongoing failures of the VPSA system at the Central District WWTP. Following the VPSA system's catastrophic failure in March 2025, WASD entered emergency operations to maintain compliance with state permitting requirements, requiring the immediate rehabilitation of cryogenic units and supplemental liquid oxygen operations. The operation and maintenance of cryogenic oxygen production systems require specialized technical expertise due to the complexity of the equipment and the inherent safety risks associated with cryogenic processes, high-pressure systems, and oxygen-enriched environments. Personnel must possess specialized training and experience to safely manage the equipment, respond to operational emergencies, and ensure compliance with applicable safety and regulatory standards.

If adequate funding is not approved and a cryogenic oxygen plant becomes unavailable, WASD would be required to rely on delivered liquid oxygen to sustain wastewater treatment operations. This alternative presents significant operational, logistical, and financial challenges. Liquid oxygen deliveries would cost approximately \$200,000 per month, excluding additional operational requirements. Continuous liquid oxygen operations would also require expanded staffing to manage 24-hour monitoring, handling, and safety procedures associated with cryogenic materials. WASD currently operates with two full-time employees dedicated to oxygen operations; however, reliance on liquid oxygen deliveries would require two additional full-time equivalent (FTE) positions, or the equivalent in sustained overtime, to support continuous operations and delivery coordination. In addition to staffing costs, estimated at approximately \$29,281 per month, ongoing equipment maintenance and operational support associated with liquid oxygen handling would add approximately \$73,539 per month. When combined, the total operational cost of relying on liquid oxygen would significantly exceed the cost of maintaining the cryogenic oxygen production infrastructure through the requested contract authority. Liquid oxygen operations also introduce increased safety risks due to the handling and storage of cryogenic materials, requiring specialized training and experienced personnel. Therefore, any disruption in these services could compromise regulatory compliance, treatment capacity, and public health protections, while reliance on liquid oxygen deliveries would significantly increase operational costs and staffing requirements needed to support continuous monitoring, delivery coordination, and safety oversight for 24-hour operations.

Scope

The impact of this item is countywide in nature.

Delegated Authority

The County Mayor or the County Mayor's designee will have the authority to exercise all provisions of the contract, including any cancellation or extensions, pursuant to Section 2-8.1 of the County Code and Implementing Order 3-38.

Fiscal Impact/Funding Source

The contract expires on December 31, 2029, and has a current cumulative allocation of \$5,859,000. If this request is approved, the contract will have a modified cumulative allocation of \$12,156,661. The requested increase in expenditure authority is based on restoration of two previously abandoned and slated for demolition cryogenic ASUs and system failures at wastewater facilities that needed emergency repairs. Additional expenditures were also incurred to perform critical corrective repairs to Cold Box No. 3 at the North District WWTP at Interama, including an internal clog identified under the prior contract that required approximately \$300,000 in repairs once the new contract was awarded. Contract funds were also consumed at a faster-than-anticipated rate due to labor overages associated with annual turnaround maintenance activities, where actual labor hours significantly exceeded contractor estimates, resulting in substantial cost overruns. Collectively, these unanticipated emergency conditions, the rehabilitation of aging infrastructure, and increased operational demands accelerated the use of available contract funds and led to the earlier-than-expected exhaustion of the current contract allocation.

Department	Existing Cumulative Allocation	Additional Allocation Requested	Modified Cumulative Allocation	Funding Source	Budgeted	Contract Manager
WASD	\$5,859,000	\$6,297,661	\$12,156,661	Proprietary Funds	FY 2025-2026 Adopted Budget, Volume 3, Page 98, Other Operating	Susan Pascual
Total	\$5,859,000	\$6,297,661	\$12,156,661			

Track Record/Monitor

Manuel Jimenez of the Strategic Procurement Department (SPD) is the Procurement Contracting Manager.

Awarded Vendor

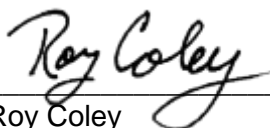
Vendor	Principal Address	Local Address	Principal
Ranch Cryogenics, Inc.	32580 North 1500 East Road Blackstone, IL	None	Michael Duffy, Jr.

Due Diligence

Pursuant to Resolution No. R-187-12, due diligence was conducted in accordance with SPD's Procurement Guidelines to determine vendor responsibility, including verifying corporate status and that there are no performance and compliance issues through various vendor responsibility lists and a keyword internet search. The lists that were referenced included convicted vendors, debarred vendors, delinquent contractors, suspended vendors, and federal excluded parties. There were no adverse findings relating to vendor responsibility.

Applicability of Ordinances and Contract Measures

- The two percent User Access Program applies where permitted by funding source.
- The Small Business Enterprise Bid Preference and Local Preference applied.
- The Living Wage Ordinance applies.



 Roy Coley
 Chief Utilities and Regulatory Services Officer



MEMORANDUM
(Revised)

TO: Honorable Chairman Anthony Rodriguez
and Members, Board of County Commissioners

DATE: May 5, 2026

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No. 8(P)(1)

Please note any items checked.

- _____ **“3-Day Rule” for committees applicable if raised**
- _____ **6 weeks required between first reading and public hearing**
- _____ **4 weeks notification to municipal officials required prior to public hearing**
- _____ **Decreases revenues or increases expenditures without balancing budget**
- _____ **Budget required**
- _____ **Statement of fiscal impact required**
- _____ **Statement of social equity required**
- _____ **Ordinance creating a new board requires detailed County Mayor’s report for public hearing**
- _____ **No committee review**
- _____ **Requires more than a majority vote (i.e., 2/3’s present ____, 2/3 membership ____, 3/5’s ____, unanimous ____, majority plus one ____, CDMP 7 votes (majority of membership) ____, CDMP 2/3 members present but not less than 7 votes (majority of membership) ____, CDMP 9 votes (2/3 membership) _____) to approve**
- _____ **Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 8(P)(1)
5-5-26

RESOLUTION NO. _____

RESOLUTION AUTHORIZING ADDITIONAL EXPENDITURE AUTHORITY IN THE AMOUNT OF \$6,297,661.00 FOR A TOTAL MODIFIED AMOUNT OF \$12,156,661.00 FOR CONTRACT NO. EVN0000429, CRYOGENIC OXYGEN PLANT MAINTENANCE AND TECHNICAL SUPPORT SERVICES (GROUP 1), FOR THE WATER AND SEWER DEPARTMENT; AND AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO EXERCISE ALL PROVISIONS OF THE CONTRACT, INCLUDING ANY CANCELLATION OR EXTENSIONS, PURSUANT TO SECTION 2-8.1 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA AND IMPLEMENTING ORDER 3-38

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that:

Section 1. This Board authorizes additional expenditure authority in the amount of \$6,297,661.00 for a total modified amount of \$12,156,661.00 for Contract No. EVN0000429, Cryogenic Oxygen Plant Maintenance and Technical Support Services (Group 1), for the Water and Sewer Department.

Section 2. This Board authorizes the County Mayor or County Mayor's designee to exercise all provisions of the contract, including any cancellation or extensions, pursuant to section 2-8.1 of the Code of Miami-Dade County, Florida and Implementing Order 3-38. A copy of the contract documents are on file with and available upon request from the Strategic Procurement Department.

The foregoing resolution was offered by Commissioner ,
who moved its adoption. The motion was seconded by Commissioner
and upon being put to a vote, the vote was as follows:

Anthony Rodriguez, Chairman	
Kionne L. McGhee, Vice Chairman	
Marleine Bastien	Juan Carlos Bermudez
Sen. René García	Oliver G. Gilbert, III
Roberto J. Gonzalez	Keon Hardemon
Danielle Cohen Higgins	Vicki L. Lopez
Natalie Milian Orbis	Raquel A. Regalado
Micky Steinberg	

The Chairperson thereupon declared this resolution duly passed and adopted this 5th day of May, 2026. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

JUAN FERNANDEZ-BARQUIN, CLERK

By: _____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.



Jose I. Ortega