

October 19, 2021

**SUBJECT:** Addendum No. 2 for Polymer  
**REFERENCE:** Invitation to Bid (ITB) No. 210032  
**TO:** All Prospective Bidders:

This Addendum is being issued for the following reasons:

• **TO REVISE THE ABOVE REFERENCED SOLICITATION AS FOLLOWS:**

1. **Page 29, SECTION E – SPECIFICATIONS/SCOPE OF WORK, ARTICLE 3.0 LOT 1 – PERFORMANCE CRITERIA: ITEM 3.2.2 has been revised to read as follows:**

3.2.2 Solids ~~capture of 95%~~ that yields less than 500mg/lit TSS or less Centrate.

Remove Page 29 and replace with the attached Page 29 marked Revised – 10/19/21.

2. **Page 30, SECTION E – SPECIFICATIONS/SCOPE OF WORK, ARTICLE 4.0 PRODUCT TESTING: ITEM 4.5.3 has been revised to read as follows:**

4.5.3 All centrifuge operational parameters (i.e., feed sludge flow, bowl speed, torque, differential etc.) will be set by DISTRICT operations staff and will be the same setting used for all Prospective Bidders and polymers tested. The centrifuge flow rate shall be approximately 155 225gpm with a torque setting of 46 48. The sludge blend will be set at 50 55% PRS and 50 45% TWASS.

Remove Page 30 and replace with the attached Page 30 marked Revised – 10/19/21.

3. **Page 31, SECTION E – SPECIFICATIONS/SCOPE OF WORK, ARTICLE 4.0 PRODUCT TESTING: ITEM 4.5.15 has been revised to read as follows:**

4.5.15 ***All Prospective Bidder(s) shall be allowed to bid more than one product so long as the bid dose is less than or equal to 12 lb active polymer per dry ton of solids and meets the criteria established in Section E – Specifications / Scope of Work, paragraph 4.5.10 to 4.5.14, inclusive, where the supporting documentation demonstrates that the average of the set of data at the bid dose produced a minimum cake solid of 23% and a less than <500mg/l TSS on the Centrate. minimum solids capture of 95% with a <1500 mg/l TSS.***

Remove Page 31 and replace with the attached Page 31 marked Revised – 10/19/21.

BOARD OF TRUSTEES  
Tick Segerblom, *Chair* • Justin Jones, *Vice Chair*  
James B. Gibson • Marilyn Kirkpatrick • William McCurdy II • Ross Miller • Michael Naft  
Thomas A. Minwegen, *General Manager*

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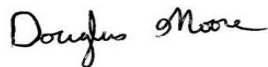
- **THE FOLLOWING QUESTION(S) AND CLARK COUNTY WATER RECLAMATION DISTRICT (DISTRICT) RESPONSES ARE HEREBY INCORPORATED AND MADE A PART OF THE ITB:**

1). I'm contacting to be added to your bid list. Also, please forward the duration of this contract for polymer?

***Answer: Pursuant to ITB 210032, Section A – Special Instructions to Bidder(s), Page 2, please complete and return the “Confirmation/Receipt Form.” As it pertains to the second portion of your question, we are interpreting this as you want to know when the current agreements will expire. The termination date for current agreements is March 20, 2022.***

When issued, this Addendum shall automatically become a part of the solicitation documents and shall supersede any previous specification(s) and/or provision(s) in conflict with the Addendum. All revisions, responses, and answers incorporated into this Addendum are collaboratively from both the DISTRICT Purchasing Solutions Division and the applicable End-User Department. It is the responsibility of the bidder to ensure that he/she has obtained all such Addendum(s). By submitting a bid on this project, bidders shall be deemed to have received all Addendum(s) and to have incorporated them into this ITB.

If you have any questions or if further clarification is needed regarding this ITB, please contact me.



Douglas Moore  
Purchasing Analyst  
702-668-8094  
E-mail: [dmoore@cleanwaterteam.com](mailto:dmoore@cleanwaterteam.com)

Attached Revised Page(s): 29, 30, and 31

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**SECTION E – SPECIFICATIONS/SCOPE OF WORK  
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**1.0 INTENT:**

- 1.1 The purpose of this contract is for the DISTRICT to both effectively and efficiently procure both Anionic and Cationic Polymer, which is utilized by the DISTRICT to support its ongoing wastewater operational needs.
- 1.2 The Polymer shall comply with all Federal, State and Local Regulations and Safety Standards in effect at the time of delivery to the DISTRICT.
- 1.3 These specifications shall be construed as minimum requirements. Should the manufacturer's current published data or specifications exceed these, they shall be considered as minimum and be furnished by the SUCCESSFUL BIDDER.
- 1.4 The DISTRICT reserves the right to allow other governmental agencies within the region (i.e., City of Las Vegas, Las Vegas Valley Water District, City of Henderson, and the City of North Las Vegas) may join and utilize this contract.
- 1.5 BIDDERS SHALL SUBMIT A SEPARATE ATTACHMENT INDICATING ANY PROPOSED VARIANCE OR DEVIATION FROM ANY OR THE FOLLOWING SPECIFICATION REQUIREMENTS. THE ABSENCE OF ANY NOTIFICATION OF ANY VARIANCES OR DEVIATIONS WILL INDICATE THE BIDDER'S ACCEPTANCE OF THE SPECIFICATION.

**2.0 GENERAL REQUIREMENTS:**

- 2.1 The SUCCESSFUL BIDDER recognizes that the DISTRICT'S successful operation of its Water Resource Facilities is dependent upon the use of Polymer, which shall meet and be in compliance with the minimum quality standards as stated within these specifications. Therefore, for the DISTRICT to monitor and ensure quality standards, the SUCCESSFUL BIDDER shall comply with the following minimum requirements for Polymer.

**3.0 LOT 1 - PERFORMANCE CRITERIA:**

**3.1 CATIONIC EMULSION POLYMER - *Flamingo Water Resource Center (FWRC)*:**

- 3.1.1 The DISTRICT currently is using a high molecular weight polymer. The DISTRICT produces approximately 50,000 dry tons of solids annually.
- 3.1.2 Currently, the DISTRICT dewater non-digested sludge on D-7 LL Andritz centrifuges. Furthermore, the DISTRICT is currently using a high molecular weight polymer.
- 3.2 In order for the Polymer to meet the DISTRICT'S requirement, it must achieve the following minimum results, as tested utilizing the methodology from the 20th edition of Standard Methods for the Examination of Water and Wastewater with a microwave oven used for drying:
  - 3.2.1 Cake solids of 23% or greater
  - 3.2.2 Solids ~~capture of 95%~~ that yields less than 500mg/lTSS or less Centrate.
- 3.3 Centrifuge flows vary from 100 gpm – 400 gpm. Non-Digested sludge typically varies between 3 – 6% solids.
- 3.4 Bids will be based upon the best performance of 12 lb. per dry ton or less of qualified dosage multiplied by the price per pound of active polymer.
- 3.5 All Bidders will be required to schedule a time to come to the DISTRICT from July 12-15, 2021 to do one (1) day of jar testing, and the weeks of July 19-22, 2021, July 26-29, 2021, August 2–5, 2021, August 9–12, 2021, August 16–19, 2021 and August 23-26, 2021 to do three (3) days full scale testing to run a tote (275 gallon tote bin of polymer for full scale testing with all samples being approved by DISTRICT staff) to qualify product. Testing dates are subject to change depending upon the number of qualified bidders. All Prospective Bidder(s) pre-qualifying

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testing supplies/equipment etc. and any unused chemicals at the end of the testing period shall be removed from the DISTRICT site at the Prospective Bidder(s) expense. Please call Douglas Moore @ (702) 668-8094 or e-mail @ [dmoore@cleanwaterteam.com](mailto:dmoore@cleanwaterteam.com) (preferred) to schedule testing dates. Scheduling will be reserved upon a first come basis.

- 3.6 The delivered polymer shall meet the minimum performance requirements without (as determined by the DISTRICT) centrate foaming.
- 3.7 The SUCCESSFUL BIDDER will be allowed to recommend up to three different polymer solution concentrations for their product and polymer dose in order to meet the DISTRICT'S requirements to meet desired % solids and capture criteria with no additional chemicals needed.
- 3.8 All SUCCESSFUL BIDDER drivers and subcontractors will be subject to background checks at the sole cost of the SUCCESSFUL BIDDER.
- 3.9 Results shall be submitted on the standardized polymer test report form.

**4.0 PRODUCT TESTING:**

- 4.1 The DISTRICT has determined that polymer product testing is required. DISTRICT will evaluate offered polymer products based on the lowest overall cost to the DISTRICT. All costs associated with the required testing will be the sole responsibility of the Prospective Bidders.
- 4.2 In order to objectively determine the lowest overall SUCCESSFUL BIDDER, the DISTRICT will apply evaluation factors to the price offered per pound of polymer to arrive at the lowest total overall cost to the DISTRICT. The evaluation will incorporate the per dry pound price to reflect the estimated total overall cost to the DISTRICT, considering polymer dose, dewatering recovery, and sludge hauling cost.
- 4.3 Results shall be submitted on the DISTRICT'S standardized polymer test report form (will be provided during site testing).
- 4.4 DISTRICT will provide lab space and equipment for Prospective Bidders to utilize during jar testing.
- 4.5 ***Testing guidelines shall be as follows:***
  - 4.5.1 Maximum of three (3) business days for testing. **NOTE: This is the total allotted time to conduct test for all polymer types. At the conclusion of each Prospective Bidder(s) testing period any unused chemicals shall be removed from the DISTRICT site at the Prospective Bidder(s) expense.**
  - 4.5.2 Each testing day shall begin no earlier than 6:30 AM Pacific Standard Time (PST) and conclude no later than 6:30 PM PST. **NOTE: This total allotted time includes preparation, batching, aging, all testing, and clean-up.**
  - 4.5.3 All centrifuge operational parameters (i.e., feed sludge flow, bowl speed, torque, differential etc.) will be set by DISTRICT operations staff and will be the same setting used for all Prospective Bidders and polymers tested. The centrifuge flow rate shall be approximately ~~155~~ ~~225~~gpm with a torque setting of ~~46~~ ~~48~~. The sludge blend will be set at ~~50~~ ~~55~~% PRS and ~~50~~ ~~45~~% TWASS.
  - 4.5.4 The feed sludge flow rate will be constant and may have a variable solids content of 3% - 6%.
  - 4.5.5 Prospective Bidders will be required to prepare a dilute polymer at 0.5% concentration.
  - 4.5.6 Prospective Bidders will determine when the diluted polymer has been sufficiently aged to commence testing.
  - 4.5.7 Prospective Bidders will determine polymer dosing (active lb./dry ton) set-points to be tested at 12lbs/dry ton max.
  - 4.5.8 Once a set-point has been set, the centrifuge will operate for at least 30 Minutes to achieve "steady state" operation before sampling will commence.

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- 4.5.9 Once “steady state” operation has been achieved, the first of three (3) sets of samples can be collected.
- 4.5.10 A minimum of three (3) sets of samples per polymer dose will be collected.
- 4.5.11 Each sampling event must be at least 30 minutes apart.
- 4.5.12 Each sample set will consist of a feed sludge sample, a cake sample and a centrate sample.
- 4.5.13 The samples will be analyzed as follows: Feed Sludge = % Total Solids; Cake = % Total Solids; Centrate = mg/L Total Suspended Solids. **(There will be no more than three (3) sample sets allowed per dosage change per hour).**
- 4.5.14 The average of each data set will be used to calculate the cake solids and solids capture for the purposes of bid submittal.
- 4.5.15 ***All Prospective Bidder(s) shall be allowed to bid more than one product so long as the bid dose is less than or equal to 12 lb active polymer per dry ton of solids and meets the criteria established in Section E – Specifications / Scope of Work, paragraph 4.5.10 to 4.5.14, inclusive, where the supporting documentation demonstrates that the average of the set of data at the bid dose produced a minimum cake solid of 23% and a less than <500mg/l TSS on the Centrate. ~~minimum solids capture of 95% with a <1500 mg/l TSS.~~***
- 4.6 **NOTE: ALL PROSPECTIVE BIDDERS PLEASE BE ADVISED THAT THE FLAMINGO WATER RESOURCE FACILITY MAY CHANGE ITS OVERALL PROCESS DURING THE COURSE OF THE CONTRACT. THEREFORE, IF THE DISTRICT ELECTS TO DO SO THE SUCCESSFUL BIDDER FOR LOT ONE (1) OF THIS ITB 210032 FOR POLYMER WILL BE REQUIRED TO CONDUCT FUTURE DETERMINED POLYMER TESTING AT NO ADDITIONAL COST TO THE DISTRICT. SUBSEQUENTLY TO APPROVED TESTED POLYMER A FAIR AND REASONABLE PRICE SHALL BE NEGOTIATED BETWEEN THE DISTRICT AND THE SUCCESSFUL BIDDER FOR THE NEWLY APPROVED POLYMER FOR LOT ONE (1).**
- 5.0 DISTRICT EQUIPMENT:**
- 5.1 The DISTRICT storage/feed system consists of 4 tanks @ 7500 gallons. The system operates automatically and is demand activated by high/low level sensors. In addition, the system automatically prepares a preset polymer concentration of a gallons-of-polymer to gallons-of-water ratio.
- 5.2 The feed tank is equipped with an overhead and in-line polymer/water static mixed on the inlet side of the tank. This allows for adequate mixing and aging of the polymer. Polymer is fed to the centrifuge using a variable speed, 10-40 GPM positive displacement pump.
- 5.3 Polymer GPM feed, polymer concentration, sludge feed GPM feed solids and all other operational parameters are controlled and recorded on the DISTRICT computer within the control room.
- 5.4 Make up water is Effluent Recycle Water and has chlorine residual; Polymer must be compatible with a chlorine residual of approximately 2-5 PPM.
- 6.0 DELIVERY LOGISTICS:**
- 6.1 The SUCCESSFUL BIDDER is responsible to deliver the Cationic Emulsion Polymer to the DISTRICT in lots not to exceed 7,000 gallons.
- 6.2 The SUCCESSFUL BIDDER shall ensure all shipments comply with all U.S. Department of Transportation regulations for marking.
- 6.3 The SUCCESSFUL BIDDER shall comply with reasonable requests for emergency deliveries.

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**END OF ADDENDUM 2**