



**QUESTION AND ANSWER (Q&A) TABLE RELATING TO THE  
INVITATION FOR QUOTES FOR THE SUPPLY AND DELIVERY OF VARIOUS CHEMICALS\***

*Updated as of March 29, 2019*

<http://www.wrd.org/business/water-replenishment-business.php>

\*List of the various chemicals:

Liquid Ammonium Sulfate (IFQ-18-001)	Aqueous Ammonia (IFQ-18-002)
Calcium Chloride (IFQ-18-003)	Calcium Hydroxide (IFQ-18-004)
Citric Acid (IFQ-18-005)	Ferric Chloride (IFQ-18-006)
Hydrogen Peroxide (IFQ-18-007)	Orthophosphate (IFQ-18-008)
Sodium Bisulfite (IFQ-18-009)	Sodium Fluoride (IFQ-18-010)
Sodium Hydroxide (IFQ-18-011)	Sodium Hypochlorite (IFQ-18-012)
Sodium Tripolyphosphate (IFQ-18-013)	Sulfuric Acid (IFQ-18-014)

	<b>QUESTION</b>	<b>RESPONSE</b>
	<b>General Questions:</b>	
1.	Is the Water Replenishment District considered a public water company or a private water company?	The Water Replenishment District of Southern California is a State Special District that was established in 1959 under the California Water Code (Division 18, §60000 through §60622).
2.	<p>Exhibit A – Background and Specifications, Section 1.0 – Background, Table 3:</p> <p>For Sodium Fluoride, the estimated annual requirement is 20,000/gallons/wet and is to be delivered in 50 LB bags. Can you tell me if the 20,000/gallons should have read 20,000/LBS? If not, what formula do you use to convert the gallons to pounds?</p>	<p>The estimated usage is based on the units of lbs of sodium fluoride – not gallons. The District is looking for quotations based on price per pound of material.</p> <p>As provided in Addendum No.1 for IFQ-18-010, Table 3 in Section 1.0 of Exhibit A was revised to indicate the approximate annual consumption of Sodium Fluoride at the Goldsworthy Desalter is 20,000 lbs., not 20,000 gallons. For convenience, the revised (redline) Table 3 is attached to this Q&amp;A table.</p>



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<b>IFQ Specific Questions:</b>	
3. IFQ -18-006 – Ferric Chloride: Do you have a current bid tab for ferric chloride? I see ferric chloride only listed for LVL and it says estimated quantity is “0”...is this correct?	The District is currently not utilizing ferric chloride at its Leo Vander Lans treatment plant, but is still accepting bids. The estimated quantity when used will be approximately 6,000 gallons annually.
4. IFQ-18-012 – Sodium Hypochlorite: In review of IFQ-18-012, several inconsistencies as it relates to reference of solution were identified. From a gallon/industry perspective, % as Sodium Hypochlorite is the normal reference however in the body text I also observed % Available Chlorine. In most cases its assumed they're the same however they are not. Since the bid document request information specific to Percent by Weight as written on page 38 of IFQ-18-012, would it be safe to assume all other calculations can reference percent by weight versus percent as available chlorine?	Liquid Sodium Hypochlorite delivered shall be based on a strength specification of available chlorine equivalent (i.e., 12.5 percent sodium hypochlorite by weight).  As explained in Addendum No.1 for IFQ-18-012, the first row of the Chemical Data Sheet (Exhibit D) was revised to insert “(Available Cl2)” after “Percent by Weight”.  Please refer to Addendum No.1 for IFQ-18-012 for the revised (redlined) Chemical Data Sheet that must be submitted as part of the quote package.
<b>New Questions received since March 18, 2019:</b>	
5. IFQ-18-011 – Sodium Hydroxide – Caustic Soda: Who is your current supplier of sodium hydroxide and what is their current pricing?	WRD has not previously held/awarded a contract for the supply of Sodium Hydroxide. Bulk chemicals for all WRD treatment plants are currently provided by the district's 3rd party contract operational groups.



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<p>6. IFQ-18-011 – Sodium Hydroxide:</p> <p><b><u>Sodium Hydroxide (All Concentrations)</u></b></p> <ol style="list-style-type: none"> <li>1) Who is the incumbent and what is the current price?</li> <li>2) Please confirm if compliance with NSF Standards can be referenced on paperwork in- lieu of AWWA? Section 4.0 in Exhibit A leads us to believe either/or is acceptable.</li> <li>3) What are the tolerances allowed for the sodium hydroxide concentrations? For example, 50% sodium hydroxide is manufactured with a range (such as 48-52%). Will a +/- 1.5 to 2.0 % range either side of the noted concentrations be acceptable? Note this will also slightly effect specific gravity.</li> <li>4) Lead content is not commonly noted on each COA for sodium hydroxide. Could an annual test result be provided in-lieu, or could this requirement be emitted?</li> <li>5) May I request a double-check of the equation being referenced for Eq. Wt. of 76% Na<sub>2</sub>O? It has been suggested the following dry short ton equation is commonly used: [ liquid weight in LBS x (NA<sub>2</sub>O % / 76) ] / 2000.</li> </ol> <p><b><u>For 25% Sodium Hydroxide:</u></b></p> <ol style="list-style-type: none"> <li>1) Are the two sodium hydroxide storage tanks at ARC interconnected?</li> <li>2) Should the specific gravity for this product at this concentration reference a number closer to 1.27? Currently the Chemical Specifications section references 1.53.</li> </ol>	<p><b><u>Sodium Hydroxide (All Concentrations):</u></b></p> <ol style="list-style-type: none"> <li>1) There is no incumbent to this supply contract. WRD has not previously held/awarded a contract for the supply of Sodium Hydroxide. Bulk chemicals for all WRD treatment plants are currently provided by the district's 3rd party contract operational groups</li> <li>2) As select WRD treatment plants produce water for potable use, bulk chemicals must be compliant with NSF standards.</li> <li>3) A +/-2% tolerance is acceptable, but payment for shipments will be calculated based on the equivalent of NaOH received in dry tons.</li> <li>4) An annual test would be acceptable.</li> <li>5) Another way to express the equation is as follows: Wt(lbs)/2000lb/ton x Na<sub>2</sub>O%/76% = Dry Ton NaOH</li> </ol> <p><b><u>For 25% Sodium Hydroxide:</u></b></p> <ol style="list-style-type: none"> <li>1) Yes the two sodium hydroxide tanks are connected.</li> <li>2) Specific gravity for 25% NaOH should read 1.27 (vs. 1.53 for 50%).</li> </ol>



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	<b>QUESTION</b>	<b>RESPONSE</b>
7.	<p>IFQ-18-005 – Citric Acid:</p> <p><b><u>50% Citric Acid</u></b></p> <ol style="list-style-type: none"> <li>1) Who is the incumbent and what is the current price?</li> <li>2) Please confirm if compliance with NSF Standards can be referenced on COA paperwork in lieu of AWWA? Section 4.0 in Exhibit A leads us to believe either/or is acceptable.</li> <li>3) Is a site visit possible to LVL &amp; ARC facilities to review the citric acid tanks? The Estimated Typical Delivery volume referenced on the Cost Table (currently stating 2,000-3,000 gallons) is a volume that exceeds the stated nominal tank capacities referenced in the Chemical Usage and Storage Summary for either location. If a site visit is not possible, can it be clarified how this 2000-3000 gallon volume will be delivered? Is this a split delivery between LVL &amp; ARC?</li> </ol>	<p><b><u>50% Citric Acid</u></b></p> <ol style="list-style-type: none"> <li>1) There is no incumbent to this supply contract. WRD has not previously held/awarded a contract for the supply of Citric Acid. Bulk chemicals for all WRD treatment plants are currently provided by the district's 3rd party contract operational groups.</li> <li>2) As select WRD's treatment plants produce water for indirect and potable use, bulk chemicals must be compliant with NSF standards.</li> <li>3) The anticipated (annual) volumes utilized by each of the treatment plants will range from 2,000 to 7,600 gallons. The option of mini-bulk deliveries of this chemical may be needed, especially since this chemical is not used for routine operations, but rather for cleaning process filters on an as needed basis.</li> </ol>
8.	<p>IFQ-18-009 – Sodium Bisulfite:</p> <p><b><u>38% Sodium Bisulfite</u></b></p> <ol style="list-style-type: none"> <li>1) Who is the incumbent and what is the current price?</li> <li>2) Should the Specific Gravity referenced on the Cost Table be closer to 1.32? Currently it states 1.10.</li> <li>3) Please confirm if compliance with NSF Standards can be referenced on paperwork in lieu of AWWA? Section 4.0 in Exhibit A leads us to believe either/or is acceptable.</li> </ol>	<p><b><u>38% Sodium Bisulfite:</u></b></p> <ol style="list-style-type: none"> <li>1) Bulk chemicals for all WRD treatment plants are currently provided by the district's 3<sup>rd</sup> party contract operational groups. Hence, there is no current pricing available.</li> <li>2) The typical specific gravity for 38% SBS is 1.31-1.33.</li> <li>3) As select WRD treatment plants produce water for indirect and potable use, bulk chemicals must be compliant with NSF standards.</li> </ol>



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	<b>QUESTION</b>	<b>RESPONSE</b>
9.	<p>IFQ-18-014 – Sulfuric Acid:</p> <p><b><u>93% Sulfuric Acid:</u></b></p> <p>1) Are the two (2) x 2400 gallon sulfuric acid storage tanks at LVL interconnected, or are they feeding separate systems within the facility?</p>	<p><b><u>93% Sulfuric Acid:</u></b></p> <p>1) Each tank has an individual feed line and isolation valve. Both tanks feed a common header which conveys chemical to the various process areas in the plant.</p>



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<p>10. <b>93% Sulfuric Acid:</b></p> <ol style="list-style-type: none"> <li>1) Who is the incumbent and what is the current price?</li> <li>2) Please confirm if compliance with NSF Standards can be referenced on paperwork in lieu of AWWA? Section 4.0 in Exhibit A leads us to believe either/or is acceptable.</li> <li>3) The Chemical Specifications ask for sulfuric acid with iron levels not to exceed 15ppm, yet producers of sulfuric acid we have consulted with do not make this guarantee. How is this limit being met currently?</li> <li>4) The Chemical Specifications requests the COA of each shipment include iron, arsenic, lead, barium, cadmium, chromium, copper, cyanide, magnesium, mercury, selenium, silver, and zinc ppm contents.             <ol style="list-style-type: none"> <li>a. Typical sulfuric acid COA's do not contain all of these data points, however technical/specification sheets for the product do define limits/ranges for many of these impurities mentioned.</li> <li>b. Does WRD have a sample COA from past deliveries showing this is occurring as requested?</li> <li>c. Or, is this impurity requirement for the COA able to be adjusted to represent what is typically found in market?</li> <li>d. How is this limit being met currently?</li> </ol> </li> <li>5) Both 1.83 and 1.84 values for specific gravity are mentioned in the bid document. Chemicals are manufactured with a slight range of concentrations and</li> </ol>	<ol style="list-style-type: none"> <li>1) There is no incumbent to this supply contract. WRD has not previously held/awarded a contract for the supply of Sulfuric Acid. Bulk chemicals for all WRD treatment plants are currently provided by the district's 3rd party contract operational groups.</li> <li>2) As select WRD treatment plants produce water for potable use, bulk chemicals must be compliant with NSF standards.</li> <li>3) Sulfuric acid is currently supplied through WRD's contract operators and it is our understanding that the product meets the listed specification. Suppliers can take exception to the chemical specification and WRD will determine whether it is able to accept those exceptions in the selection of the successful bidder.</li> <li>4)             <ol style="list-style-type: none"> <li>a. It is acceptable for the COA to acknowledge that the product complies with the required specification without specifically including concentrations on the COA.</li> <li>b. No</li> <li>c. Suppliers can take exception to the chemical specifications for specific constituents and WRD will determine whether it is able to accept those exceptions through the selection process.</li> <li>d. Sulfuric acid is currently supplied through WRD's contract operators and it is our understanding that the product meets the listed specification.</li> </ol> </li> <li>5) Yes</li> </ol>
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	<b>QUESTION</b>	<b>RESPONSE</b>
	densities - is product near the range of 1.83 to 1.84 acceptable?	
11.	IFQ-18- 008 –Orthophosphate: Can you please provide the previous year's bid tabulation for the Orthophosphate?	Bulk chemicals for all WRD treatment plants are currently provided by the District's 3 <sup>rd</sup> party contract operational groups.
12.	IFQ-18-012 – Sodium Hypochlorite:  % available chlorine is not the same as % sodium hypochlorite. I'm not sure if this was clearly understood however when using available chlorine, one is mentioning the active chlorine in solution. The information from the bid packet I shared previously was correct; i.e. percent by weight Sodium Hypochlorite, which the majority of all in the Southern California water industry use.  I wanted to get back to you as I feel the information prior to was not understood and wanted to see if we can get this addressed and fixed to reflect the following: <u>12.5% wt.% sodium hypochlorite</u> , not 12.5 wt.% available chlorine.	Liquid sodium hypochlorite delivered shall be based on 12.5% wt.% sodium hypochlorite.
13.	IFQ-18-012 – Sodium Hypochlorite:  Who is your current supplier of sodium hypochlorite and what is their current pricing?	Procurement and supply of bulk generic chemicals for all WRD treatment facilities is currently the responsibility of the District's 3 <sup>rd</sup> party contract operations groups. The recently released IFQs are in response to WRD's effort to begin centralized procurement of chemicals.



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14.	<p>IFQ-18-012 – Sodium Hypochlorite:</p> <ol style="list-style-type: none"> <li>1) Who currently supplies this product to WRD?</li> <li>2) Tank storage capacities in Exhibit ‘A’ <u>individual facility summaries</u> and tables 2 to 4 <u>for usage and storage by location</u> do not match completely. Can you please clarify and reconfirm actual total storage capacities by site.</li> <li>3) How many storage tanks at each ship-to site? If more than one, are they adjacent next to each other or located throughout the plant?</li> <li>4) How does WRD define “full loads” and “partial loads” quantities for this product (ie. # of gals.)?</li> <li>5) What is the typical delivery quantities (gals.) ordered by each individual site? This is necessary in order to determine costs on a delivered price basis unless pricing may be qualified with a min. delivered quantity.</li> <li>6) Requirements and delivered costs to service are very different by site/location. Can individual pricing Cost Tables be offered for each site so that lowest overall aggregate costs may be offered?</li> <li>7) Is this strictly a one year supply term or may supply be extended or renewed annually by mutual agreement?</li> <li>8) Will all three locations be awarded in total or separately?</li> <li>9) <b>Contract Amendments:</b> If work is changed or amended in the middle of the term, this is by mutual agreement and pricing may be amended if the changes result in higher costs to the supplier?</li> </ol>	<ol style="list-style-type: none"> <li>1. There is no incumbent to this supply contract. WRD has not previously held/awarded a contract for the supply of sodium hydroxide. Bulk chemicals for all WRD treatment plants are currently provided by the district’s 3rd party contract operational groups.</li> <li>2. Refer to the Tables 2-4 for reference. Tank capacities referenced in Table 1 Summary are related to the cleaning tank capacities.</li> <li>3. The number of chemical storage tanks for each site are presented in Tables 2-4. Bulk chemical tanks are centrally located within each site.</li> <li>4. For delivery purpose, full loads are defined based on the chemical tank capacity (90%) at each site. Partial loads are typically defined as mini-bulk loads of up to 1000gallons.</li> <li>5. Per the information contained in Tables 2-4 related to projected annual usage and tank capacities, delivered quantities typically consist of full loads, except where tank capacities warrant mini-bulk deliveries.</li> <li>6. Information related to the location of all WRD plants is provided in Table 1. WRD is seeking one price per chemical for supply to all facilities.</li> <li>7. This is strictly a one year supply term at this time. WRD will issue another IFQ prior to the end of the term.</li> <li>8. WRD is seeking to award one supplier of sodium hypochlorite for all three of WRD’s facilities. This supplier may also supply other chemicals to WRD, assuming they are the lowest bidder for the other chemicals.</li> <li>9. If a contract amendment is required, pricing may be negotiated between WRD and the supplier.</li> <li>10. Liquidated damages will be assessed by WRD on a case by case basis, and thus are not automatic.</li> <li>11. Invoicing based on certified weight tickets will be acceptable.</li> <li>12. WRD does not require submittal of health and training records of supplier drivers/employees. However, WRD may request verification that certain</li> </ol>
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<p>10) What accommodation on liquidated damages or other penalties for late or missed deliveries does WRD have for uncontrollable Force Majeure conditions?</p> <p>11) Most bulk bleach suppliers do not have meters on tankers for delivery. Quantities delivered for invoicing will be based upon the net weight difference in certified weight tickets generated at shipping and at return, OK?</p> <p>12) Supplier driver/employee health and training information is private and cannot be shared externally, OK?</p> <p>13) Samples of deliveries analyzed by WRD at the site suspected of being non-conforming must be called out and rejected prior to unloading, OK?</p> <p>14) May it be assumed that standard payment terms of Net 30 will apply to this agreement?</p>	<p>supplier drivers/employees were trained properly to meet all site/WRD safety requirements.</p> <p>13. As requested, samples from the delivery tanker will be provided and analyzed on-site via titration/etc. The supplier driver will allow sufficient time for this to occur prior to unloading.</p> <p>14. Payment for items shall be made in a timely manner after completion of delivery and acceptance by the WRD Operations Superintendent or authorized representative and upon receipt of an invoice from the Contractor.</p>
<p>15. IFQ-18-006 – Ferric Chloride: The above mentioned bid for ferric chloride states deliveries are 2500 gallons, however on the usage and storage page it states the tank is only 1090 gallons.  Please clarify tank size and delivery size.</p>	<p>Due to the capacity of the tank, ferric chloride would be ordered for delivery via mini-bulk basis.</p>



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16. IFQ-18-006 – Ferric Chloride: Can you please confirm your last bid pricing and supplier information for the last Ferric Chloride proposal (assuming 2018). I did read your questions and know that you currently do not purchase this chemical for water treatment processes as noted in your questions and answer section.	Ferric chloride was not bid nor was it purchased in 2018.