



AGENDA REPORT

Meeting Date: August 6, 2013
Item Number: F-10
To: Honorable Mayor & City Council
From: Kevin Watson, Water Operations Manager
Subject: LICENSE AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND BLACK & VEATCH CORPORATION TO AUTHORIZE USE OF CITY'S DESALINATION FACILITY TO TEST ZERO DISCHARGE DESALINATION TECHNOLOGY FOR TREATMENT OF DESALINATION CONCENTRATE

Attachments: 1. Agreement

RECOMMENDATION

It is recommended that the City Council move to approve the award of a license agreement to Black & Veatch to authorize use of City's desalination facility to test Zero Discharge Desalination technology for treatment of desalination concentrate.

INTRODUCTION

Licensee, Black & Veatch has entered into an agreement with California Energy Commission to perform research to demonstrate an emerging technology, zero discharge desalination, for the treatment of desalination concentrate in connection with the 2011 Emerging Technology Demonstration Grant Program ("ETDG II") (the "Project") as described further in the discussion below.

In December 2011, the City Council authorized the use of the License Area by Consultant as a test site location and agreed to contribute to the Project by providing in kind support that includes labor and materials and allowing Licensee to access City's Desalination Facility and work on site, and performing research with filtering equipment to be provided to Licensee by manufacturer, I. Kruger, Inc. (a subsidiary of Veolia). The agreement is for a period of one year.

DISCUSSION

The California Energy Commission solicited applications for grant funding for emerging technologies. Grants are targeted toward desalination and advanced water treatment technologies with the goal of developing new ways to conserve water and eliminate concentrate discharge to the sewer system.

Black & Veatch (B&V) is an internationally recognized Engineering and Consulting Company based out of Kansas City, Missouri and specializes in process engineering for water treatment systems. B&V has indicated its intention to submit an application to the California Energy Commission and their Water Technology Group had invited the City of Beverly Hills to participate in its proposal as the project demonstration site.

The City of Beverly Hills operates and maintains a Reverse Osmosis Water Treatment Plant which is the Beverly Hills Desalination Facility (BHDF). Potential benefits to the City should it participate as a test site include a reduction in the concentrate discharge to the sewer system with subsequent savings in the costs of the disposal; an increase in water produced; and the benefits of an engineering study.

The grant awarded is for \$800,000.

On November 15, 2011, staff sent a letter to the California Energy Commission stating the City's conditional intent, pending City Council approval on December 6, 2011, to support the 2011 Emerging Technology Grant Program research project proposed by the Black & Veatch team by providing a site for the demonstration facility at the Beverly Hills Desalination Facility (BHDF) and by providing in-kind support. In that meeting the City Council gave its authorization.

Black & Veatch conducted a bench-top laboratory study of various methods of treating brine concentrate so that zero liquid discharge could be achieved. The study began in 2004 and was completed in 2005 at the City's Reverse Osmosis Water Treatment Plant. The study involved two to three of their staff working at the treatment plant five days per week for one year. The study used cutting edge technology, which proved the concept was feasible. The City was provided a copy of the final publication on the study. B&V used the information learned at Beverly Hills and continued their study by conducting pilot studies in other localities across the country. Having successfully completed the pilot studies to prove the technologies, they are ready to take the next step and again work with the City on a full-scale program.

The objective of the grant and the goal of B&V's proposal are to demonstrate an emerging technology, zero discharge desalination (ZDD) for treatment of desalination concentrate. The technology will be tested with one or two full-scale ZDD stacks at a capacity of 25 gallons per minute or 50 gallons per minute treating desalination concentrate from the Beverly Hills Desalination Facility ("BHDF"). The objectives of the test will be to determine the energy requirements, water recovery, required ion exchange membrane area, and effluent water quality. These results will be used to determine treatment cost comprising capital and operating cost for zero liquid discharge (ZLD) desalination at the License Area. It is anticipated that City will achieve future cost savings due to: (a) a reduction in wastewater treatment costs resulting from reduced volume discharged; (b) an increase in the annual subsidy from the Metropolitan Water District ("MWD") from the increase in local groundwater recovery production and (c) the reduction in water purchases from MWD. B&V proposes the Beverly Hills Reverse Osmosis Water Treatment Plant otherwise referred to as the Beverly Hills Desalination

Facility (BHDF) as the site to conduct its program. The BHDF generates a concentrate flow of 250 gallons per minute. B&V will have a staff assigned to the project where they will work five days per week for one year.

To carry out the full-scale program, B&V would equip the BHDF with two full-scale ZDD stacks with a capacity of 25 gallons per minute or 50 gallons per minute treating desalination concentrate from the Beverly Hills Desalination Facility. The equipment is being provided by I. Kruger, Inc. (a subsidiary of Veolia), who will also have personnel on-site during mobilization and demobilization to assist in setting up the equipment and taking it down at the end of the project. The project is projected to last for a period of one year. Ten stacks will be required to treat the total 250 gallons per minute concentrate flow. Results from the study will be used to determine design criteria and costs to achieve Zero Liquid Discharge treatment of concentrate at the BHDF.

In addition to providing a site for the demonstration program, the City will provide in-kind support with an estimated value of \$23,000. In-kind support will include labor and materials associated with setting up and demobilizing test equipment, provision of water quality data, use of our laboratory space, materials and equipment for field tests, coordination with our compliance laboratory for sample analyses, and ongoing maintenance support throughout testing.

Currently, BHDF discharges concentrate to the sanitary sewer, paying the City of Los Angeles to treat this by-product at the Hyperion Wastewater Treatment Plant. Through its participation during the one-year study, Beverly Hills will determine future savings for:

- A reduction in wastewater treatment costs resulting from the reduced volume discharged.
- An increase in the annual subsidy from the Metropolitan Water District from the increase in local groundwater recovery production.
- Savings resulting in the reduction in water to be purchased from Metropolitan Water District.

The City is likely to see an additional engineering benefit resulting from the design and process determined from the final study.

Through its participation in this study, Beverly Hills will essentially receive all the benefits associated with a \$1,000,000 engineering study to develop design criteria for treatment of the BHDF concentrate. Specific benefits are as follows:

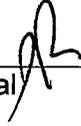
- Design criteria will be developed for zero liquid discharge treatment of the BHDF concentrate.
- Energy requirements for concentrate treatment will be determined.
- Treatment costs including capital, operations and maintenance will be determined.
- Space requirements for the concentrate treatment system will be determined.

At the end of the study, the City will have the information necessary to evaluate installing concentrate treatment equipment and eliminating concentrate discharge to the sewer.

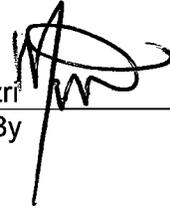
FISCAL IMPACT

The cost for these services is included in the Water Enterprise Fund. Funding for these services has been included in the base budget for in the FY13-14 and FY14-15 Water Enterprise Fund for a combined total expense of \$23,000 over the two fiscal years.

Don Rhoads
Finance Approval



Mahdi Aluzri
Approved By



Attachment 1

LICENSE AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND BLACK & VEATCH CORPORATION TO AUTHORIZE USE OF CITY'S DESALINATION FACILITY TO TEST ZERO DISCHARGE DESALINATION TECHNOLOGY FOR TREATMENT OF DESALINATION CONCENTRATE

This LICENSE AGREEMENT (the "License") is dated as of _____, 2013 and is entered into by and between the CITY OF BEVERLY HILLS, a municipal corporation ("City") and BLACK & VEATCH CORPORATION, a Delaware corporation ("Licensee").

RECITALS

A. Licensee has entered into an agreement with California Energy Commission to perform research to demonstrate an emerging technology, Zero Discharge Desalination (ZDD), for the treatment of desalination concentrate in connection with the 2011 Emerging Technology Demonstration Grant Program ("ETDG II") (the "Project") as described in Exhibit B attached hereto and incorporated herein..

B. In December 2011, the City Council authorized the use of the License Area by Consultant as a test site location and agreed to contribute to the Project by providing in kind support that includes labor and materials and allowing Licensee to access City's Desalination Facility and work on site, and performing research with filtering equipment to be provided to Licensee by manufacturer, I. Kruger, Inc (a subsidiary of Veolia).

NOW, THEREFORE, the parties agree as follows:

Section 1. CONDITION PRECEDENT. The effectiveness of this License is conditioned for the benefit of City upon delivery to City of the insurance certificates described in Section 11B below upon execution of the Agreement.

Section 2. LICENSE AREA. The area of the City's Desalination Plant also known as the Water Treatment Plant located at 345 Foothill Road, Beverly Hills, California 90210, subject to this License is described in Exhibit A, attached hereto and incorporated herein (the "License Area").

Section 3. LICENSE. Subject to satisfaction of the condition in Section 1 above, City hereby grants Licensee a non-exclusive license to use the License Area for the purposes of performing Licensee's work under the contract between Licensee and the California Energy Commission as described in Exhibit B. Veolia/Kruger and The University of Texas at El Paso personnel are authorized to enter the License Area as necessary for the performance of work under this Agreement.

Section 4. COMPLIANCE. Licensee shall observe and comply with any and all applicable laws, statutes and regulations relating to the use of the License and shall obtain and maintain during the term of the License all necessary permits and government approvals required by law for use of the License Area under this License, including, without limitation, a City business license.

Section 5. TERM. Licensee may commence use of the License Area upon receipt of a written Notice to Proceed from City and shall cease its use upon completion of the Project testing, unless terminated sooner upon not less than twenty-four (24) hours prior written notice by one party to the other.

Section 6. USE; MAINTENANCE. Licensee desires to place on and use in the License Area one or two Zero Discharge Desalination (ZDD) stacks as further described in Exhibit B, (the "Equipment"). Licensee shall at all times keep the Equipment in good and operable condition and repair, at Licensee's sole cost and expense. Any damage to the License Area or adjoining improvements or property arising out of the installation, operation, servicing, repair, alteration or removal of the Equipment shall be repaired and/or replaced (as applicable) at the sole expense of the Licensee to the satisfaction of the City Manager.

Section 7. CITY'S RESPONSIBILITIES. City shall provide "in-kind" support for the Project with a value not to exceed \$23,000 based on an hourly labor rate of \$120. City's "in-kind" support will consist of labor and materials associated with setting up and demobilizing test equipment, provision of water quality data, use of laboratory space, coordination with laboratory used by the City for sample analysis, and ongoing maintenance support throughout testing. City shall, during the term of this License Agreement, remain liable for its own negligence in providing "in-kind" support under this Agreement.

Section 8. ALTERATIONS AND IMPROVEMENTS. Licensee shall not construct or (except for placement of the Equipment) install any structures, improvements, or fixtures on the License Area without the prior written consent of the City Manager.

Section 9. ASSIGNMENT. Licensee shall not, either voluntarily or by operation of law, assign, transfer, mortgage, pledge, hypothecate or encumber this License or any interest herein, or any right or privilege appurtenant hereto, or allow any other person to occupy or use the License Area, or any portion thereof, without first obtaining the written consent of City Manager, which consent may be withheld in his sole and absolute discretion.

Section 10. INDEMNIFICATION. Licensee shall indemnify and hold harmless City, the City Council and each member thereof, and City's officers, employees and agents (all collectively referred to as "Indemnitees") from and against any and all claims, liabilities, losses, costs, expenses and damages arising from Licensee's use of the License Area or from the conduct of its business or from any activity, work, or other things done, suffered by the Licensee in or about the License Area, and shall further indemnify and hold harmless Indemnitees from and against any and all claims, liabilities, losses, costs, expenses and damages arising from any breach or default in the performance of any obligations on Licensee's part to be performed under the terms of this License, or arising from any act or negligence of the Licensee, or any officer, agent, employee, guest, or invitee of Licensee, and from all costs, attorneys' fees, and liabilities incurred in or about the defense of any such claim or any action or proceeding brought thereon. If any action or proceeding be brought against Indemnitees by reason of any such claim, Licensee, upon notice from Indemnitees shall defend Indemnitees at Licensee's expense, by counsel reasonably satisfactory to Indemnitees. Licensee, as a material part of the consideration to City, hereby assumes all risk of damage to property or injury to persons in, upon or about the License Area, from any cause; and Licensee hereby waives all claims in respect thereof against

City. Licensee shall give prompt notice to City in case of casualty or accidents on or about the License Area.

Section 11. INSURANCE.

(a) Liability. Licensee shall at all times during the term of this License shall, at Licensee's expense, maintain in force general liability insurance policies which will defend, insure and indemnify the Licensee, City and the other Indemnites against liability or financial loss resulting from any suits, claims or actions and from all costs and expenses of litigation, in an amount of not less than Five Million Dollars (\$5,000,000) combined single limit for any injury to persons and/or damage to property in or about the License Area by reason of the use and occupation by Licensee or by any other person or persons of the License Area together with an endorsement in the form of a Certificate of Insurance approved by City. Such insurance shall include contractual liability coverage with respect to Licensee's obligations under Section 10 above. Not more frequently than once each year, if, in the opinion of the insurance broker or consultant retained by City, the amount of general liability insurance coverage at that time is not adequate, Licensee shall increase the insurance coverage as required by City's insurance broker or consultant. Licensee shall cause the owner of any vehicle utilized in connection with this License to maintain comprehensive vehicle liability coverage covering personal injury and property damage in an amount of not less than Five Million Dollars (\$5,000,000) per occurrence, combined single limit, covering the Equipment and One Million Dollars (\$1,000,000) per occurrence, combined single limit, covering any other vehicle utilized in connection with this License. Licensee shall also maintain worker's compensation coverage in an amount adequate to comply with law, and employer's liability coverage with a limit of not less than One Million Dollars (\$1,000,000.00). The general and vehicle liability insurance shall contain an endorsement naming City as an additional insured. All of the policies required under this License shall contain an endorsement providing that the policies cannot be canceled except on thirty (30) days prior written notice to City, and specifically stating that the coverage contained in the policies affords insurance pursuant to the terms and conditions as set forth in this License.

(b) Certificates. Said policy shall be issued by an insurer rated in Best's Insurance Guide with a financial rating of A X or better. Said policy shall provide that the insurance coverage shall not be cancelled or reduced by the insurance carrier without the City having been given 45 days' prior written notice thereof by such carrier. Licensee agrees that it will not cancel or reduce said insurance coverage. **Upon the execution of this License, and thereafter upon written request of Licensee, Licensee shall provide the City Clerk of the City a Certificate from the insurance carrier or carriers showing the aforesaid insurance policies are in effect in the amounts above provided.**

(c) Lapsed Insurance. Licensee agrees that if it does not keep the aforesaid insurance in full force and effect, the City may (but shall not be obligated to) take out the necessary insurance and pay the premium thereon, and Licensee shall reimburse City for the cost thereof within ten (10) days after written demand.

(d) Notice. Licensee shall give prompt written notice to City of any damage to the License Area during the term of this License and any damage to other property or to persons as a result of Licensee's use of the License Area or the operation of the Equipment.

Section 12. REMEDIES ON DEFAULT. City shall be entitled to recover from Licensee all damages incurred by City by reason of Licensee's default, and may pursue any other remedy now or hereafter available to city under the laws or judicial decisions of the State of California.

Section 13. NOTICES TO CITY. All notices shall be delivered to the Director of Public Works of City at 445 North Rexford Drive, Beverly Hills, California 90210 and to the Chief Financial Officer of the City at the same address, or at such other addresses or to such other persons as the City may from time to time designate in writing.

Section 14. NOTICES TO LICENSEE. All notices given by City to Licensee hereunder shall be in writing and delivered to Licensee at Black & Veatch Corporation, 8400 Ward Parkway, Kansas City, MO 64114. Notices may be personally delivered, delivery by certified mail (return receipt requested), or delivered by reputable overnight delivery service.

Section 15. SURRENDER. Upon the expiration or termination of the term of this License, Licensee shall surrender the License Area to the City in the same condition as received prior to initial use by Licensee (and Licensee shall remove all of the Equipment and restore the License Area).

Section 16. GENERAL PROVISIONS.

(a) Waiver. The waiver by City of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or any subsequent breach of the same or any other term, covenant or condition herein contained.

(b) Time. Time is of the essence of this License and each and all of its provisions in which time is a factor.

(c) Prior Agreements. This License contains all of the agreements of the parties hereto with respect to any matter covered by this License, and no prior agreements or understanding pertaining to any such matters shall be effective for any purpose. No provision of this License may be amended or added to except by an agreement in writing signed by the parties hereto.

(d) Partial Invalidity. Any provision of this License which shall prove to be invalid, void, or illegal shall in no way affect, impair or invalidate any other provision hereof and such other provision shall remain in full force and effect.

(e) City's Approvals. Neither City's execution of this License nor any consent or approval given by City hereunder shall waive, abridge, impair or otherwise affect City's powers and duties as a governmental body.

(f) POSSESSORY INTEREST TAX. LICENSEE RECOGNIZES AND UNDERSTANDS THAT THIS LICENSE MAY CREATE A POSSESSORY INTEREST THAT MAY BE SUBJECT TO TAXES LEVIED UPON SUCH INTEREST. LICENSEE SHALL PAY ALL SUCH TAXES.

(g) No Recording. Licensee shall not record this License or any memorandum thereof.

(h) Attorneys' Fees. If any party named herein brings an action to enforce the term hereof or to declare rights hereunder, the prevailing party in any such action, on trial and appeal, shall be entitled to recover its costs and reasonable attorneys' fees.

(i) Authority of City. The City Manager shall have the authority to give any and all consents, approvals and terminations on behalf of the City hereunder.

(j) Severability. Invalidation of any provision contained herein or the application thereof to any person or entity by judgment or court order shall in no way affect any of the other covenants, conditions, restrictions, or provisions hereof, or the application thereof to any other person or entity, and the same shall remain in full force and effect.

LICENSEE:

BLACK & VEATCH CORPORATION,
a Delaware corporation



TERRY JOHNSON
Senior Vice President



TOM REORDA
Senior Vice President/Director of Finance &
Administration

[Signatures continue]

CITY:

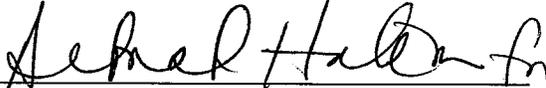
**CITY OF BEVERLY HILLS,
A municipal corporation**

JOHN A. MIRISCH
Mayor of the City of
Beverly Hills, California

ATTEST:

BYRON POPE
City Clerk

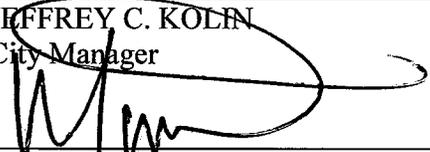
APPROVED AS TO FORM:



LAURENCE S. WIENER
City Attorney

APPROVED AS TO CONTENT:

JEFFREY C. KOLIN
City Manager



MAHDI A. UZRI
Assistant City Manager/Acting Director of
Public Works & Transportation



KARL KIRKMAN
Risk Manager

EXHIBIT A

DESCRIPTION OF LICENSE AREA

The License Area shall be defined as the following areas of the City Desalination Plant located at 345 Foothill Road, Beverly Hills, California:

- 1) area next to the Reverse Osmosis train taking water from the brine discharge line and
- 2) laboratory within the Desalination Plant.

The License Area is further described on the diagram attached hereto as Attachment 1 to Exhibit A.

ATTACHMENT 1 TO EXHIBIT A

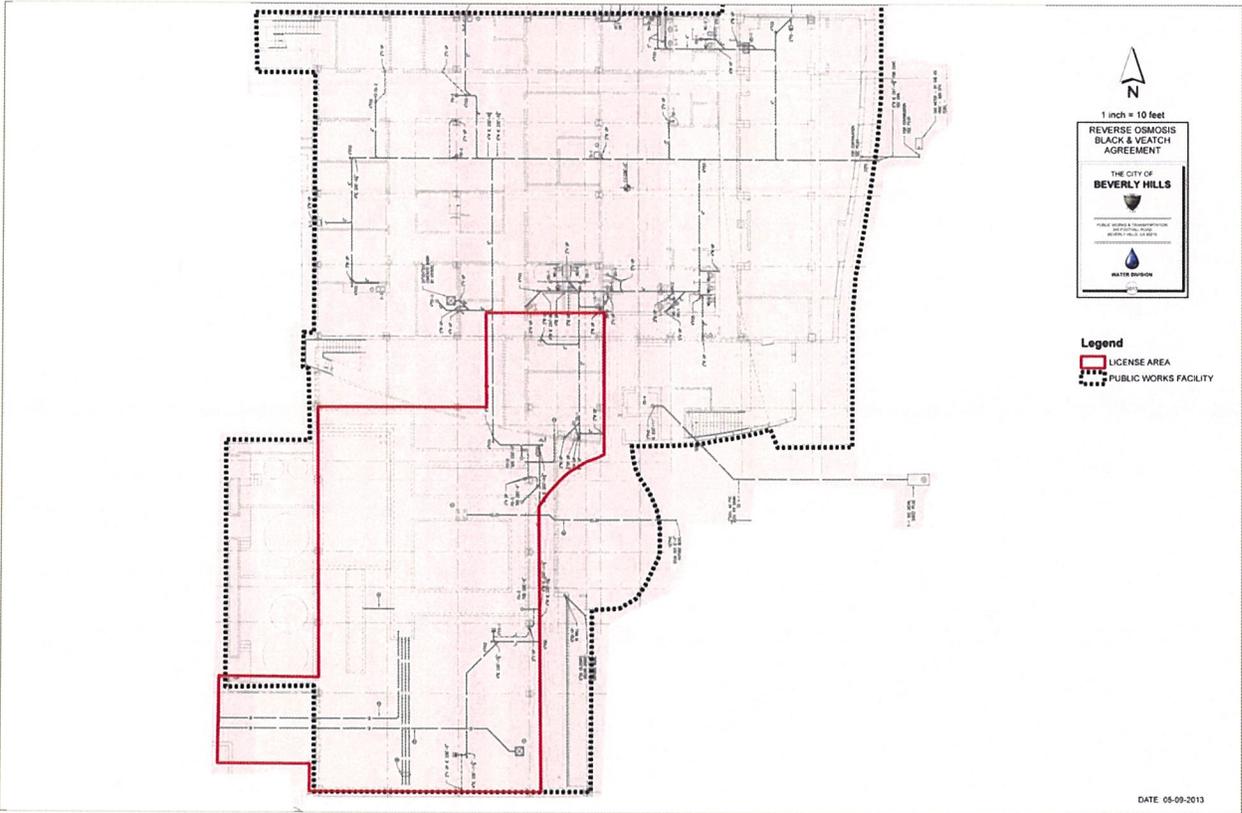


EXHIBIT B

USE OF LICENSE AREA

The purpose of the Project is to demonstrate an emerging technology, Zero Discharge Desalination (ZDD), for treatment of desalination concentrate. The technology will be tested with one or two full-scale ZDD stacks at a capacity of 25 gallons per minute or 50 gallons per minute treating desalination concentrate from the Beverly Hills Desalination Facility ("BHDF"). The objectives of the test will be to determine the energy requirements, water recovery, required ion exchange membrane area, and effluent water quality. These results will be used to determine treatment cost comprising capital and operating cost for zero liquid discharge (ZLD) desalination at the License Area. It is anticipated that City will achieve future cost savings due to: (a) a reduction in wastewater treatment costs resulting from reduced volume discharged; (b) an increase in the annual subsidy from the Metropolitan Water District ("MWD") from the increase in local groundwater recovery production and (c) the reduction in water purchases from MWD.

Licensee shall coordinate with City to develop plans for installation of the ZDD stack(s) at the License Area. City staff will provide building layout plans and information necessary to make plumbing and electrical connections. Licensee shall use this information to develop a site plan for installation of the ZDD stack(s). Licensee shall coordinate with City to ensure the site layout is designed to avoid conflict with existing plant operations.

Licensee shall supervise installation of the ZDD stack(s) in the License Area. Installation of the ZDD stack(s) will be a collaborative effort among Licensee, City, and the manufacturer and provider of the ZDD stack(s) (Kruger). Installation is scheduled for July and August 2013. Operation and testing will begin as soon as ZDD installation is complete.

It is anticipated the ZDD stack(s) will run continuously during testing for approximately one year while the Water Treatment Plant is in operation. The Water Treatment Plant is shut down on the weekends. The ZDD stack(s) will be operated and monitored by Licensee. Testing is scheduled to be completed by April 2015. Samples will be collected during testing and sent to an outside laboratory for testing. The costs of the outside laboratory testing will be covered by Licensee. At the conclusion of testing, the ZDD equipment will be demobilized and shipped back to Kruger at Licensee's expense except to the extent of City's in kind support as set forth in Section 7 of the Agreement.

At the conclusion of testing, Licensee shall deliver to City a written report that presents all test results and estimates the costs and energy requirements to treat all of the concentrate at the License Area. This report shall include without limitation: (a) the design criteria developed for ZLD treatment of the BHDF concentrate; (b) energy requirements for concentrate treatment; (c) treatment costs including, capital, operations and maintenance; and (d) space requirements for the concentrate treatment system.