



## AGENDA REPORT

**Meeting Date:** April 11, 2013

**Item Number:** F-10

**To:** Honorable Mayor & City Council

**From:** Anne Zaworski, Principal Civil Engineer  
Kevin Watson, Water Operations Manager

**Subject:** APPROVAL OF AMENDMENT NO. 3 TO AN AGREEMENT BETWEEN THE CITY OF BEVERLY HILLS AND KEC ENGINEERS, INC. TO PROVIDE ENGINEERING EVALUATION AND REHABILITATION DESIGN SPECIFICATIONS RELATED TO RESERVOIR 4A'S EXISTING CONDITION; AND

APPROVAL OF A CHANGE ORDER IN THE AMOUNT OF \$194,435 TO THE PURCHASE ORDER TO KEC ENGINEERS, INC. FOR A TOTAL NOT-TO-EXCEED AMOUNT OF \$498,975.

**Attachments:**

1. Amendment No. 3
2. CDPH Letter Dated February 1, 2013
3. Letter to CDPH Dated March 13, 2013
4. CDPH Letter Dated March 29, 2013

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### **RECOMMENDATION**

Staff recommends that the City Council move to approve Amendment No.3 to the existing Agreement #171-10 between the City of Beverly Hills and KEC Engineers, Inc. to provide additional engineering design and construction inspection and management services for the proposed rehabilitation of Reservoir 4A; and an increase in the amount of \$194,435 to the existing purchase order to KEC Engineers, Inc; for a total not to exceed amount of \$498,975.

### **INTRODUCTION**

Water Reservoir 4A, constructed in 1954, is a partially buried reinforced concrete structure with a storage capacity of 2.2 MG providing domestic supply and fire protection to the westerly portion of Zone 8 of the City's water distribution system (area between

Coldwater Cañon Drive and the west City limits). Reservoir 4A is divided into North and South basins, each of which can be operated independently.

## **DISCUSSION**

- On June 19, 2012, City Council awarded a construction contract to United Engineering & Construction Inc. (lowest responsible bidder) for the structural rehabilitation and interior lining of Reservoir 4A.
- During construction, a number of unforeseen conditions resulted in the construction period having to be extended by 5 additional weeks. Consequently, on December 18, 2012, Amendment No. 2 to KEC's (Design Engineer) Agreement in the amount of \$31,790 was approved to cover additional construction-related inspection services provided by KEC during the 5 week over-run.
- On January 10, 2013, when United Engineering (Contractor) was onsite to finalize the work under their contract (disinfecting, filling and placing the reservoir back in service), the City's Water Operations Manager informed Engineering staff that the California Department of Health (CDPH) would not issue the City an operating permit for Reservoir 4A until the City addressed design upgrades to bring the reservoir to current standards. Prior to 2004 reservoirs were not issued an operating permit and existing reservoirs were basically grandfathered in without being in violation. However, since then all newly constructed reservoirs or reservoirs that are taken out of service for rehabilitation must meet all current standards prior to being put back into service.
- To meet all current standards (which will include the design of a brand new overflow pipe) will require additional design/inspection services in the amount of \$194,435 to KEC. It will also necessitate a two-step approach for the construction phase with five of the six tasks (excludes new overflow pipe which will be bid separately) being constructed for a not-to-exceed amount of \$200,000; which will require an increase to United Engineering and Construction Inc.'s existing Purchase Order for this project (requested under a separate Agenda Report at tonight's City Council meeting). Because this increase to United's P.O. will result in a maximum allowable contract contingency of 20% for United; it will be necessary (as mentioned above) for staff to advertise for public bid in August the final task which involves the construction of a new overflow pipeline for this reservoir which will cost approximately \$500,000 to construct.
- KEC's additional design/inspection fees under Amendment #3 in the amount of \$194,435 includes the preparation of contract documents (plans and specifications) for the design of all of the violation corrections including the new overflow which is primarily required due to the existing overflow having been originally designed to handle a far lower reservoir inflow rate than currently exists. Upgrades to the city's water operating system throughout the years has realized a reservoir fill rate at 4A that is almost five times more than it was when the original overflow was constructed.

Between January 10 and March 14, Engineering staff worked closely with KEC Engineers Inc. and United Engineering & Construction Inc. (Reservoir 4A Contractor) to fully explore and develop the potential design and construction costs related to these upgrades as requested by CDPH. Consequently, staff is recommending approval by City Council of Amendment No. 3 to the existing Agreement No. #171-10 between the City of Beverly Hills and KEC Engineers, Inc. which will cover the additional design services required to satisfy CDPH's February 1, and March 29, 2013, requests.

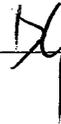
**FISCAL IMPACT**

Funds for this increase are provided as follows:

FUND	PROJECT NUMBER	SUB-PROJECT NUMBER	FUNDING SOURCE	AMOUNT
80	796	35-80-0796-85040	80 Water Enterprise Net Assets	\$194,435



Noel Marquis  
Finance Approval



David Gustavson  
Approved By

# **Attachment 1**

AMENDMENT NO. 3 TO AN AGREEMENT BETWEEN THE  
CITY OF BEVERLY HILLS AND KEC ENGINEERS, INC. TO  
PROVIDE ENGINEERING EVALUATION AND  
REHABILITATION DESIGN SPECIFICATIONS RELATED TO  
RESERVOIR 4A'S EXISTING CONDITION

NAME OF CONSULTANT: KEC Engineers, Inc.

RESPONSIBLE PRINCIPAL  
OF CONSULTANT: Kavous Emami, P.E., Principal in Charge

CONSULTANT'S ADDRESS: 13201 9th Street  
Chino, CA 91710  
Attention: Kavous Emami, P.E.  
Principal in Charge

CITY'S ADDRESS: City of Beverly Hills  
345 N. Foothill Road  
Beverly Hills, CA 90210  
Attention: David D. Gustavson  
Director of Public Works & Transportation

COMMENCEMENT DATE: May 19, 2010

TERMINATION DATE: Upon satisfactory completion of all work  
required under this Agreement as  
determined by City

CONSIDERATION: Original Agreement: \$127,250 as further  
described in Exhibits A and B

Amendment No. 1: An additional \$145,500  
as further described in Exhibits A-1 and B-1

Amendment No. 2: An additional \$31,790 as  
further described in Exhibits A-1 and B-1

Amendment No. 3: An additional \$194,435  
as further described in Exhibits A-1 and B-1

Total: Not to exceed \$498,975

AMENDMENT NO. 3 TO AN AGREEMENT BETWEEN THE  
CITY OF BEVERLY HILLS AND KEC ENGINEERS, INC. TO  
PROVIDE ENGINEERING EVALUATION AND  
REHABILITATION DESIGN SPECIFICATIONS RELATED TO  
RESERVOIR 4A'S EXISTING CONDITION

This Amendment No. 3 is to that certain Agreement between the City of Beverly Hills, a municipal corporation ("CITY"), and KEC Engineers, Inc, (hereinafter called "CONSULTANT") dated May 18, 2010, and identified as Contract No. 171-10 as amended by Amendment No. 1 dated May 1, 2012, and identified as Contract No. 159-12, and Amendment No. 2 dated December 18, 2012 and identified as Contract No. 528-12 to provide engineering evaluation, rehabilitation design specifications and inspection services related to Reservoir 4A's existing condition ("Agreement"), copies of which are on file in the Office of the City Clerk.

RECITALS

A. CITY entered into an Agreement with CONSULTANT May 18, 2010 to provide engineering evaluation, rehabilitation design specifications and inspection services related to Reservoir 4A's existing condition .

B. CITY desires to further expand the Scope of Services and increase the Consideration to compensate CONSULTANT for such additional services.

NOW, THEREFORE, the parties agree as follows:

Section 1. The Consideration shall be amended as set forth above.

Section 2. Exhibit A-1, Scope of Additional Services shall be amended as attached hereto and incorporated herein.

Section 3. Exhibit B-1, Schedule of Payment and Rates for Additional Services shall be amended as attached hereto and incorporated herein.

Section 4. Except as specifically modified by Section 1 and Section 4 of Amendment No. 1 and this Amendment No. 3, the provisions of the Agreement shall remain in full force and effect.

EXECUTED the \_\_\_\_\_ day of \_\_\_\_\_ 2013, at Beverly Hills, California.

CITY OF BEVERLY HILLS  
A Municipal Corporation

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

ATTEST:

\_\_\_\_\_  
(SEAL)  
BYRON POPE  
City Clerk

CONSULTANT: KEC ENGINEERS, INC.

\_\_\_\_\_  
KAVOUS EMAMI  
President

\_\_\_\_\_  
PAMELA EMAMI  
Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
LAURENCE S. WIENER  
City Attorney

APPROVED AS TO CONTENT:

\_\_\_\_\_  
JEFFREY C. KOLIN  
City Manager

\_\_\_\_\_  
DAVID D. GUSTAVSON  
Director of Public Works & Transportation

\_\_\_\_\_  
KARL KIRKMAN  
Risk Manager

## EXHIBIT A-1

### SCOPE OF ADDITIONAL SERVICES

#### **AMENDMENT NO. 1:**

CONSULTANT shall perform the following additional services related to the engineering evaluation and rehabilitation design services for Reservoir 4As existing condition:

#### 1. ELECTRICAL AND COMUNICATION DESIGN

- (a) New electrical conduits inside the valving vault located west of Reservoir A
- (b) New signal conduit for operation of Motor Activated Valves (MOV)
- (c) New lighting and one electrical outlet inside the vault.
- (d) New Ventilation Fan with a timer and ventilation duct.
- (e) Demolish the existing wiring and panels inside the control room above the reservoir and design a new MCC to incorporate all new and existing electrical and instrumentation
- (f) Provide intrusion alarm signals at existing Reservoir 4A access hatches and for the vault located west of Reservoir 4A

#### 2. PIPING DESIGN

- (a) Replace all existing 2 1/2 "water pipes and 2 1/2" valves inside the vault.
- (b) Replace existing 5 HP booster pump inside the vault with a new booster pump of highest possible capacity.
- (c) Install new actuators on the existing 12-inch butterfly valves and all proposed
- (d) 2 1/2" valves. The actuators need to be water proof (if available in the market)

#### 3. SAFETY IMPROVEMENT DESIGN

- (a) New safety poles for all ladders (three locations) two at the reservoir entrances and one at the inlet-outlet valve vault and safety sleeve.
- (b) Replace the springs and hinges at the reservoir roof access hatches and the hatch for the inlet-outlet vault located west of Reservoir 4A

4. INSPECTION SERVICE: STRUCTURAL repair, sand blasting, coating, and testing in accordance with the plans and specifications requirements.

This item will be performed by: Aurelio Corral, JR. of CSI, Joe Indrawan of KEC Engineers, and Kavous Emami. Item #11 covers bid items 1 & 6, sand blasting loose concrete and removal/replacement of the damaged steel reinforcement and repair of the damaged concrete surface areas. Upon completion of the repairs, the interior of the tank will be sand blasted the a primer coating will be applied prior to the application of the polyurethane

5. INSPECTION SERVICE: ELECTRICAL, mechanical, instrumentation in accordance with the plans and specifications requirements.

This item will be performed by Bob Kavooosi, electrical and instrumentation (Bid items, 18, 19, 20, 22, & 26). Kavous Emami, Mechanical (Pumps, valves, pipes, fittings, pressure testing, disinfection, and bacteriological testing).

6. INSPECTION SERVICE: PROJECT MANAGEMENT supervision and shop drawing review and as built preparation in accordance with the plans and specifications requirements.

This item will be performed by all the people listed above based on their field of expertise. This task involves general site work, replacement of vault access doors, safety items, vent, fans, as built preparation, etc.

7. ADDITIONAL TERMS AND CONDITIONS

- (a) The programming of the new PLC for valve actuators and integration with the City's SCADA system will be done by the City's instrumentation consultant.
- (b) The new valve actuators will be designed for open or closed status and operate based on hand or auto.
- (c) All valves will be controlled from the room located above Reservoir 4A. The programming for remote operation of the proposed valve actuators inside the vault will be handled by the City's instrumentation consultant.

Design a new MCC with modular sections, there will be a main disconnect and panel board for all CBs. There will be one section for the transfer pump (existing) and one section spare (future pump). In addition, there will be one section dedicated for the PLC section. Valve control switches and indicators will be on the MCC door. The existing RTU panel PLC and modems need to be saved for the SCADA communication. City will program the PLC, SCADA, and the communication configuration.

**AMENDMENT NO. 2:**

1. INSPECTION SERVICE: STRUCTURAL repair, sand blasting, coating, and testing in accordance with the plans and specifications requirements.

This item will be performed by: Ryan O. Koga and Ben Dias of CSI and covers inspection of bid items 2, 6, 9 and 11; sand blasting loose concrete, removal/replacement of the damaged steel reinforcement, repair of the damaged concrete surface areas and lining. Upon completion of the repairs, the interior of the tank will be sand blasted the a primer coating will be applied prior to the application of the polyurethane

2. INSPECTION SERVICE: ELECTRICAL, mechanical, instrumentation in accordance with the plans and specifications requirements.

This item will be performed by Bob Kavooosi, electrical and instrumentation (Bid items, 17, 18, 19, 20, 21, 22, & 25). Kavous Emami, mechanical (Pumps, valves, pipes, fittings, pressure testing, disinfection, and bacteriological testing).

3. INSPECTION SERVICE: PROJECT MANAGEMENT supervision and shop drawing review and as built preparation in accordance with the plans and specifications requirements.

This item will be performed by all the people listed above based on their field of expertise. This task involves general site work, replacement of vault access doors, safety items, vent, fans, as built preparation, etc.

**AMENDMENT NO. 3:**

California Department of Health Services (CDPH) in a letter to CITY dated February 1, 2013 conditioned issuance of an operating permit for reservoir 4A upon CITY's completion of the following additional tasks:

**Reservoir 4A: CDPH-Requested Tasks:**

- 1- Site visits for Existing Overflow Pipe Condition Assessment:  
(8 hours field inspection and review of DVDs)
- 2-Design modifications to the existing ductile Iron of overflow pipe at the northwest corner of the reservoir to accommodate future new overflow pipe (Civil, structural calculations, detailing and drafting)
- 3- Water Quality Sampling Stations design for east side of reservoir:
- 4- Redesign of existing drainage system at Miradero and new inlet structure design

- 5- Water Quality Sampling Stations design for west side of reservoir
- 6- New Dewatering Pump Design including electrical and control
- 7- Electrical and control system design for new Sampling Pumps
- 8- Meeting with CITY, CDPH to obtain CDPH approval
- 9- Design relocation of the existing air valves from inside to outside the existing valve vault
- 10- New Overflow pipeline design from the northwest corner of Reservoir 4A to Lindacrest Drive via Coldwater Bridle path. The new pipeline shall be designed to run above ground on the slope (between reservoir and Bridle Path) area and run underground along Bridle Path to Lindacrest. The work shall also include field surveying and geotechnical investigation of slope

EXHIBIT B-1  
SCHEDULE OF PAYMENT AND RATES  
FOR ADDITIONAL SERVICES

**AMENDMENT NO. 1:**

	<u>FEES</u>
DESIGN SERVICES: ELECTRICAL AND COMMUNICATION DESIGN	\$22,000
DESIGN SERVICES: PIPING DESIGN	\$15,000
DESIGN SERVICES: SAFETY IMPROVEMENT DESIGN	\$ 8,000
INSPECTION SERVICE:	
STRUCTURAL REPAIR, SAND BLASTING, COATING, AND TESTING	\$60,000
INSPECTION SERVICE:	
ELECTRICAL, MECHANICAL, INSTRUMENTATION	\$22,500
INSPECTION SERVICE:	
PROJECT MANAGEMENT SUPERVISION AND SHOP DRAWING REVIEW	\$18,000
CITY shall pay CONSULTANT for the professional engineering design services listed above in the amount of	\$145,500.

**AMENDMENT NO. 2:**

INSPECTION SERVICE:	
STRUCTURAL REPAIR, SAND BLASTING, COATING, AND TESTING	\$12,500
INSPECTION SERVICE:	
ELECTRICAL, MECHANICAL, INSTRUMENTATION	\$ 5,250
INSPECTION SERVICE:	
PROJECT MANAGEMENT SUPERVISION AND SHOP DRAWING REVIEW	\$14,040
CITY shall pay CONSULTANT for the professional engineering inspection services listed above in the amount of	\$31,790.

### **AMENDMENT NO. 3:**

The following cost breakdown summarizes the scope of work initiated by CITY, as required by the California Department of Health Services (CDPH) in their letter to CITY dated February 1, 2013 and as conditions for the issuance of an operating permit for reservoir 4A. The scope of work was modified by CITY and CDPH a few times between January 10, 2013 (when disinfection/filling of Reservoir 4A was stopped by Water Operations) and March 18, 2013. The following cost breakdown represents all tasks requested by CITY including the latest CDPH-requested modification which includes relocation of the existing two air valves from inside to outside of the existing vault.

<b><u>Reservoir 4A: CDPH-Requested Tasks:</u></b>	<b><u>Fixed Fees:</u></b>
<b><u>Phase A:</u></b>	
1- Site visits for Existing Overflow Pipe Condition Assessment: (8 hours field inspection and review of DVDs)	\$3,500
2-Design modifications to the existing ductile Iron of overflow pipe at the northwest corner of the reservoir to accommodate future new overflow pipe (Civil, structural calculations, detailing and drafting)	\$15,000
3- Water Quality Sampling Stations design for east side of reservoir:	\$4,500
4- Redesign of existing drainage system at Miradero and new inlet structure design	\$7,500
5- Water Quality Sampling Stations design for west side of reservoir	\$2,500
6- New Dewatering Pump Design including electrical and control	\$12,000
7- Electrical and control system design for new Sampling Pumps	\$3,500
8- Meeting with CITY, CDPH to obtain CDPH approval	\$1,500
9- Design relocation of the existing air valves from inside to outside the existing valve vault	\$2,000
<b><u>Phase B:</u></b>	
10- New Overflow pipeline design from the northwest corner of Reservoir 4A to Lindacrest Drive via Coldwater Bridle path. The new pipeline will be designed to run above ground on the slope (between reservoir and Bridle Path) area and run underground along Bridle Path to Lindacrest. The work shall also include field surveying and geotechnical investigation of slope	\$60,000
<b>Sub-total professional engineering design services:</b>	<b>\$ 112,000</b>

**Services During Construction:**

*Project Manager at \$185/hr.*

*Civil Inspector at \$140/hr.*

I- Coordination and shop drawing review 15 hrs @ \$185/hr	\$2,775
II- Meetings with sub-contractors, City staff, and general contractor, 16 hrs	\$2,960
III- Inspection of Phase A Tasks: 140 hours at \$140/hr.	\$18,200
IV- Preparation of "As Built" for Phase A and Phase B	\$2,500
V- New Overflow pipeline inspection (Phase B task, 50 working days)	\$56,000
<b>Sub-total construction-related services not to exceed:</b>	<b>\$ 82,435</b>
<b>Total cost not to exceed:</b>	<b>\$ 194,435</b>

**Schedule:**

**Phase A: Design Tasks 1-9:**

Design for correction of CDPH violations 1-9:	6 Weeks
Material Order:	3 Weeks from City Council Award
Construction Period:	4 Weeks from Material Receipt

**Phase B: Design & Construction Inspection Task 10:**

New overflow pipe from Reservoir 4A to Lindacrest:

Geotechnical investigation and surveying:	3 Weeks from City Council Award
Engineering design and bid documents:	6 Weeks from geotechnical/survey receipt
Construction period:	10 Weeks from City Council Construction Award

# **Attachment 2**



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

February 1, 2013

Mr. Kevin Watson  
Water Operations Manager  
City of Beverly Hills  
345 Foothill Road  
Beverly Hills, CA 90210

Dear Mr. Watson:

**SYSTEM NO. 1910156 – CITY OF BEVERLY HILLS WATER DEPARTMENT,  
RESERVOIR REHABILITATION PROJECT, RESERVOIR 4A**

On November 9, 2012 and January 14, 2013, Ms. Ofelia Oracion of my staff conducted the site inspection of the City of Beverly Hills' (City) Reservoir 4A. The City had made the improvements on the tank recently. The improvements included structural repairs and seismic upgrade, application of polyurethane coatings/linings in the internal wall of the reservoir, removal and installation of new control pump, valves, pipes and electrical conduits in the reservoir's outlets/inlets vault, removal and installation of new inlet/outlet/drain pipes and fittings, and installation of new instrumentation and control system and other miscellaneous works.

Reservoir 4A was constructed in 1954. The storage facility is partially subsurface reinforced concrete reservoir with a capacity of 2.15 million gallon. It has two chambers: the South Basin and the North Basin. The City plans to equip each unit with a Solar Bee recirculation system.

Based on the on-site inspections and the review of the engineering drawings, bid documents and specifications submitted by the City to the Department via emails on January 14 and 15, 2013, we noted the following deficiencies:

1. Sampling Tap. The California Waterworks Standards (Section 64585 (a)(3) specify that at least one sampling tap must be available to enable representative sampling of the water in the reservoir that will be entering the distribution system. The tap must be protected against freezing, if necessary. Reservoir 4A has no sampling tap. The City has proposed to provide the North and South Basins of Reservoir 4A each with a sampling station, similar to the sampling tap installed at Coldwater Canyon Reservoir. The sampling taps will be installed at the inlet/outlet pipes located in the vault at the west side of the reservoir. The City

must submit to the Department the engineering drawing for the proposed sampling stations for review and approval

2. Overflow Device. The California Waterworks Standards specify that the reservoir's overflow device and drainage facilities must not be connected directly to a sewer or storm drain and must be free of cross-connection. Reservoir 4A's overflow system is located in the northwest side of North Basin. The South Basin overflows to the North Basin. The 8-inch diameter overflow pipe is buried to the ground and discharges directly to a street without an airgap. The City has proposed to construct a catch basin. The catch basin will receive water from the overflow pipe prior to discharging to a street curb along Lindacrest Road. The City must submit to the Department the engineering drawing for the overflow system for review and approval. The City must ensure that a physical break (air gap) of two times the diameter between the end of the pipe and the receiving vessel (catch basin) is provided. A screen must be installed at the end of the pipe.
  
3. Drainage Facilities. The California Waterworks Standards specify that the reservoir's drainage facilities must allow the tank to be drained and all residual sediment removed. Reservoir 4A does not have a bottom drain. According to the City, Reservoir 4A can be partially drained through the two 8-inch diameters inlet/outlet/drain pipes installed inside the reservoirs at North and South Basins. These pipes are located in the southeast side of the reservoir and **one foot above the bottom of the reservoir**. The inlet/outlet/drain pipes connect to a 14-inch diameter HDPE transmission line. The transmission line is connected to a 4-inch diameter drain pipe that discharges to Miradero Road without an airgap. The City has proposed to construct a catch basin to provide an airgap. The catch basin will receive water from the 4-inch diameter drain pipe. From the catch basin, water will be drained to Miradero Road.

It is not clear how the drainage system will allow the tank to be fully drained and all the sediment removed. The City must submit a written description to the Department, explaining how the complete drainage and sediment removal will be achieved. In addition, the City must submit to the Department the engineering drawing of the airgap for the drain pipe for review and approval. Again, a physical break of two times the diameter between the end of the pipe and the receiving vessel (catch basin) must be provided and a screen must be installed at the end of the pipe.

On January 29, 2013, you requested the Department via email to allow Reservoir 4A's South Basin to be placed in service after the installation of the sampling tap and the

Mr. Kevin Watson  
Page 3  
February 1, 2013

results of bacteriological and volatile organic chemicals (VOCs) samples are acceptable to the Department. You mentioned that the City would delay the operation of the North Basin until the City has completed the upgrading of the overflow piping and discharge system.

This is to inform you that the City may place South Basin of the Reservoir 4A into service with the following conditions:

1. The sampling taps must be in place.
2. The South Basin must be disinfected in accordance with the AWWA Standards.
3. The results of bacteriological and VOC analyses of samples collected after soaking test for the South Basin are acceptable to the Department.
4. The draining system design documents submitted by the City are acceptable to the Department.
5. The City must complete the construction of the overflow and drainage systems within three months after the South Basin is placed into service.

If you have any questions, please contact Ms. Ofelia Oracion at (818) 551-2020 or myself at (818) 551-2045.

Sincerely,



Shu-Fang Orr, P.E.  
District Engineer  
Angeles District

# **Attachment 3**



Kevin Watson, Water Operations Manager  
Public Works & Transportation

March 13, 2013

State of California, Department of Public Health  
Southern California Branch  
Drinking Water Field Operations  
500 N. Central Ave. Suite 500  
Glendale, CA 91203  
Attn: Shu-Fang Orr, P.E.

Dear Shu-Fang Orr, P.E.

This letter is to acknowledge receipt of SYSTEM NO. 1910156 – CITY OF BEVERLY HILLS WATER DEPARTMENT, RESERVOIR REHABILITATION PROJECT, RESERVOIR 4A letter dated February 1, 2013.

In accordance with your letter of February 1, 2013, the City of Beverly Hills may place the South Basin of Reservoir 4A in service subject to the following conditions:

1. Sampling taps must be in place.
2. The South Basin must be disinfected in accordance with the AWWA Standards.
3. The results of the bacteriological and VOC analysis of samples collected after soaking tests for the South Basin are acceptable to the Department.
4. The draining system design documents submitted by the City are acceptable to the Department.
5. The City must complete the construction of the overflow and drainage systems within three months after the South Basin is placed into service.

Please be informed that the City would like to place the South Basin of Reservoir 4A in service upon meeting conditions 1 thru. 5 stated above with the exception of completing a new overflow pipe in three months. The City would like to have up to one year to complete design and construction of a new overflow pipe from the new catch basin that will be installed prior to putting the South Basin into service.



Here is our work plan:

1. Install blind flanges at the North Basin of Reservoir 4A outlet pipes (two locations). This will isolate the North Basin of Reservoir 4A from any portion of the distribution system. Hence we will utilize the North Basin as an overflow storage basin while South Basin is placed in service.
2. The City will closely monitor the South Basin to prevent any overflow into the North Basin. The SCADA system will be used as the first line of defense to prevent overflowing the South Basin. In rare events of signal failures, we will have standby operators to respond to any potential overflow incident within 45 minutes of signal failures and to reduce flow or turn off the pumps feeding Reservoir 4A.
3. The City will have the drain pumps installed in both the North and South Basins to empty the overflows if any, from the North Basin into the existing overflow drain pipe with a proper air gap. (Overflow catch basin with air gap was submitted and approved by CDPH).
4. The City will request a budget from the City Council to construct a new permanent overflow pipe for Reservoir 4A. The existing 8-inch concrete overflow pipe can safely handle up to 700 gpm flow in the event of an overflow and can be utilized to drain any of the basins with the proposed drain pumps (The proposed drain pumps are rated at 90 gpm each).

If you have any questions please let me know.

Sincerely,

Kevin Watson  
Water Operations Manager  
Public Works & Transportation  
City of Beverly Hills  
345 Foothill Road  
Beverly Hills, CA 90210

Cc: Ofelia A. Oracion. Sanitary Engineer

# **Attachment 4**



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

March 29, 2013

Mr. Kevin Watson  
Water Operations Manager  
City of Beverly Hills  
345 Foothill Road  
Beverly Hills, CA 90210

Dear Mr. Watson:

**SYSTEM NO. 1910156 – CITY OF BEVERLY HILLS WATER DEPARTMENT,  
RESERVOIR 4A**

We have reviewed your letter dated March 13, 2013, requesting the Department to extend the deadline for completing the construction of the overflow system for Reservoir 4A as specified in the Department's letter dated February 1, 2013 from within three months after the South Basin is placed into service to up to one year. You indicated during a meeting on February 25, 2013 at our office that the City's consultant had determined that the existing overflow piping is in need of replacement for structural reason. The City would need more time to complete the design and construction of the overflow system.

Reservoir 4A has two chambers: the South Basin and the North Basin. The City plans to place the South Basin into service before the completion of the overflow and drainage system, in order to meet system demand. In your letter, you stated the City would fully comply with the Conditions 1 to 4 listed in the Department's February 1, 2013 letter and would complete the construction of the drainage system in accordance with the deadline specified in Condition 5 of the same letter. In addition, the City would:

1. Install blind flanges at the North Basin of Reservoir 4A outlet pipes (two locations) to isolate the North Basin of Reservoir 4A from any portion of the distribution system. North Basin would be utilized as an overflow basin while South Basin is in service.
2. Closely monitor the South Basin to prevent any overflow into the North Basin. The SCADA system would be used as the first line of defense to prevent overflowing the South Basin. In rare events of signal failure, the City would have standby operators responding to any potential overflow incident within 45

Mr. Kevin Watson  
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March 29, 2013

minutes of signal failure and to reduce flow or turn off the pumps feeding Reservoir 4A.

3. Have the drain pumps installed in both the North and South Basins to empty the overflows if any, from the North Basin into the existing overflow drain with a proper air gap.
4. Request a budget from the City Council to construct a new permanent overflow pipe for Reservoir 4A. The existing 8-inch concrete overflow pipe can safely handle up to 700 gpm flow in the event of an overflow and can be utilized to drain any of the basins with the proposed drain pumps.

This is to confirm that your overflow construction deadline extension request has the Department's approval. If you have any questions, please contact Ms. Ofelia Oracion at (818) 551-2020 or myself at (818) 551-2045.

Sincerely,



Shu-Fang Orr, P.E.  
District Engineer  
Angeles District

Mr. Kevin Watson

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March 29, 2013

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