

Meeting Date: 5/3/2016

Report Type: Consent

Report ID: 2016-00418

Title: Contract: Fairbairn Water Treatment Plant Groundwater Well

Location: District 3

Recommendation: Pass a Motion 1) approving the contract plans and specifications for the Fairbairn Water Treatment Plant Groundwater Well Project; and 2) awarding the contract to Zim Industries for an amount not-to-exceed \$361,963.

Contact: Dan Sherry, Engineering & Water Resources Manager, (916) 808-1419; Michelle Carrey, Supervising Engineer, (916) 808-1438; Mark Elliott, Project Manager, (916) 808-8894, Department of Utilities

Presenter: None

Department: Department Of Utilities

Division: Cip Engineering

Dept ID: 14001321

Attachments:

- 1-Description/Analysis
- 2-Background
- 3-Location Map
- 4-Contract

City Attorney Review

Approved as to Form
Joe Robinson
4/26/2016 11:34:45 AM

Approvals/Acknowledgements

Department Director or Designee: Bill Busath - 4/15/2016 10:47:28 AM

Description/Analysis

Issue Detail: Staff recommends Council award a construction contract to Zim Industries Inc. for the construction of the Fairbairn Water Treatment Plant (FWTP) Groundwater Well.

Policy Considerations: The FWTP Groundwater Well Project is consistent with both City and regional water planning efforts to provide a safe and reliable water supply. On July 24, 2012 the City Council authorized the City Manager to enter into an agreement with the Regional Water Authority to receive Proposition 84 grant funding. The grant funding provided resources for several water supply projects, including the FWTP Groundwater Well. The projects being funded by Proposition 84 funding are all consistent with the City Council focus areas of public safety, economic development, sustainability, and livability.

Economic Impacts: This new infrastructure construction is expected to create 1.45 total jobs (0.83 direct jobs and 0.62 jobs through indirect and induced activities) and create \$223,488 in total economic output (\$140,866 of direct output and another \$82,622 of output through indirect and induced activities).

The indicated economic impacts are estimates calculated using a calculation tool developed by the Center for Strategic Economic Research (CSER). CSER utilized the IMPLAN input-output model (2009 coefficients) to quantify the economic impacts of a hypothetical \$1 million of spending in various construction categories within the City of Sacramento in an average one-year period. Actual impacts could differ significantly from the estimates and neither the City of Sacramento nor CSER shall be held responsible for consequences resulting from such differences.

Environmental Considerations: The Community Development Department, Environmental Planning Services Division has reviewed the proposed project and has determined that it is exempt from review under the California Environmental Quality Act (CEQA) under Sections 15301(b & d) and 15303 of the CEQA Guidelines. The project consists of operation and minor alteration of existing utility systems(water treatment plant), the new construction and location of existing limited numbers of new, small facilities or structures and the installation of new equipment and facilities(new well at existing water treatment plant).

Sustainability: The City is committed to maintaining and developing an efficient and dependable groundwater supply that will maintain and increase the City's water supply resilience and reliability, and support a surface water/groundwater conjunctive use program. Staff's recommendation is consistent with the City's Strategic Plan Goals of achieving sustainability, livability, and expanding economic development throughout the City.

Commission/Committee Action: None.

Rationale for Recommendation: The project was advertised and three bids were received and opened on March 2, 2016. Zim Industries was the lowest responsible bidder. The bid results are as follows:

Zim Industries Inc.	\$361,963
Hydro-Resources West Inc.	\$367,944
Pacific Coast Well Drilling	\$479,874

The Engineer's construction cost estimate was \$336,000.

Financial Considerations: This contract is for construction of a groundwater well, for an amount not to exceed \$361,963. The total estimated costs for administration, inspection and construction is \$410,000. Sufficient funds are available in the FWTP Groundwater Well Project (Project No. Z14120200). Remaining budgeted funds will be used for the future site improvement project, including road, electrical, and civil improvements.

Local Business Enterprise (LBE): Zim Industries Inc. is not an LBE, but has partnered with an LBE, Ramos Oil, for this contract to exceed the minimum LBE participation requirement. Ramos Oil will provide fuel for the project.

Background

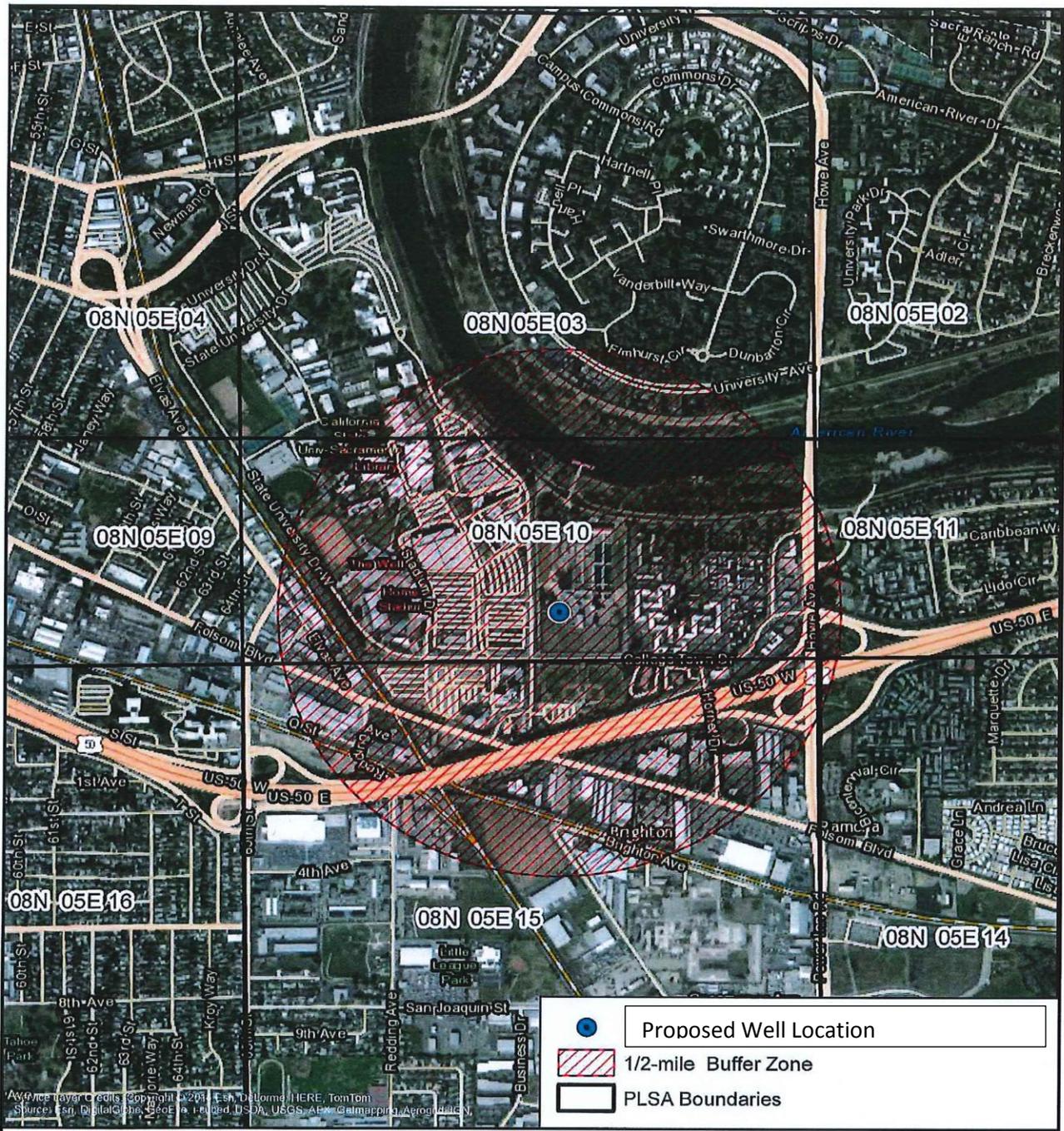
Fairbairn Water Treatment Plant Groundwater Well Project

In 2013, the Department of Utilities (DOU) completed a Water Supply Master Plan (Plan). The Plan recommended replacement of some existing groundwater wells due to their poor condition. Based on a hydrogeologic report that considered groundwater quality, geologic formations, and potential production, the Fairbairn Water Treatment Plant was recommended as a site for a new well.

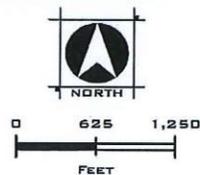
On July 24, 2012, the City entered into an agreement with the Regional Water Authority to receive Proposition 84 grant funding to assist the City with several water supply projects, which included the FWTP Groundwater Well Project.

Site investigation and results from test hole drilling performed in February 2015 confirmed the site is suitable for a new groundwater well with a production capacity of approximately 3,000 gallons per minute.

Upon completion of the well, a separate contract will be issued to construct the above ground site improvements.



WELL COMPLETION REPORT
RELEASE REQUEST
CITY OF SACRAMENTO
E.A. FAIRBAIRN
HYDROGEOLOGIC ASSESSMENT
SACRAMENTO COUNTY, CA
SEPTEMBER, 2014




WOOD RODGERS
 DEVELOPING INNOVATIVE DESIGN SOLUTIONS
 3301 C Street, Bldg. 100-B Tel: 916.341.7760
 Sacramento, CA 95816 Fax: 916.341.7767

Figure 1

ENGINEERING SERVICES DIVISION

**CONTRACT SPECIFICATIONS
FOR**

FAIRBAIRN WATER TREATMENT PLANT GROUNDWATER WELL

PN: Z14120200

B16141321022

Engineer's Estimate: 336,000.00

For Pre-Bid Information Call:

Mark Elliott
Associate Engineer
(916) 808-8894

Separate Plans

Bid to be received before 2:00 PM
March 2, 2016
City Hall, Office of the City Clerk
915 I Street, 5th Floor, Public Counter
Sacramento, CA 95814

LBE PROGRAM PARTICIPATION

For information on meeting the City of Sacramento's Local Business Enterprise (LBE) project goals, please contact Procurement Services at (916) 808-6240, or visit the City of Sacramento's small business web site at: <http://portal.cityofsacramento.org/Finance/Procurement/Bid-Information#bidding-options>

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LBE INFORMATION

The City of Sacramento's Local Business Development program establishes an annual local business enterprise (LBE) participation goal for City contracts, and authorizes City departments to require minimum LBE participation levels in individual contracts. Under City Code section 3.60.270, all bidding contractors must meet or exceed the minimum LBE participation requirement specified in the contract's bid specifications to qualify as a responsive bidder.

For information on meeting the City of Sacramento's Local Business Enterprise (LBE) project goals, please contact Procurement Services at (916) 808-6240, or visit the City of Sacramento's small business web site at: <http://portal.cityofsacramento.org/Finance/Procurement/Bid-Information#bidding-options>

NOTICE TO CONTRACTORS

CITY OF SACRAMENTO

Sealed Proposals will be received by the City Clerk of the City of Sacramento at the Office of the City Clerk, City Hall, located at 915 I Street, 5th Floor, Public Counter, up to the hour of 2:00 p.m. on **March 2, 2016** and opened at and read after 2:00 p.m. on **March 2, 2016**, or as soon thereafter as business allows, in the Hearing Room, 2nd Floor Room, in Historic City Hall, for construction of:

FAIRBAIRN WATER TREATMENT PLANT GROUNDWATER WELL (PN: Z14120200) (B16141321022)

as set forth in the Contract Documents.

Proposals received and work performed thereunder shall comply with the requirements of Chapter 3.60 of the Sacramento City Code. Each Bid Proposal shall be accompanied by bid security of at least 10% of the sum the Bid Proposal. The City reserves the right to reject proposals or to waive any error or omission in any Bid Proposal received. Signed proposals shall be submitted on the printed forms contained herein and enclosed in an envelope marked:

SEALED PROPOSAL FOR FAIRBAIRN WATER TREATMENT PLANT GROUNDWATER WELL (PN: Z14120200) (B16141321022)

You can view and download the plans and Contract Documents from:

PLANET BIDS
<http://www.planetbids.com/portal/portal.cfm?CompanyID=15300#>

The contractor and all subcontractors shall comply with the rates of wages currently established by the Director of Industrial Relations under provisions of Sections 1773 of the Labor Code of the State of California, a copy of which is on file in the office of the City Clerk and available to any interested party on request. In accordance with Sacramento City Code Section 3.60.180 and Section 1771.5 of the California Labor Code, the payment of the general prevailing rate of per diem wages or the general prevailing rate of per diem wages for holiday and overtime is not required for any construction project of \$25,000 or less, or an alteration, demolition, repair, and maintenance project of \$15,000 or less. The City of Sacramento has an approved Labor Compliance Program. **The City uses an electronic system for the submission of Labor Compliance Reports, which became effective May 1, 2007.** The contractor and every lower-tier subcontractor shall submit certified payrolls and labor compliance documentation electronically at the discretion of and in the manner specified by the City of Sacramento.

Electronic submittal is via a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor is given a Log On identification and password to access the City of Sacramento's reporting system.

Use of the system may entail additional data entry of weekly payroll information including employee identification, labor classification, total hours worked and hours worked on this project, wage and benefit rates paid, etc.. The contractor's payroll and accounting software might be capable of generating a 'comma delimited file' that will interface with the software.

Department of Industrial Relations Registration and Reporting Requirements (SB 854)

Labor Code Section 1725.5 (enacted by SB 854) requires all contractors bidding on this contract, all subcontractors listed in a bid for this contract, and any contractor or subcontractor performing any work under this contract, to be currently registered with the California Department of Industrial Relations (DIR), as specified in Labor Code Section 1725.5. Labor Code Section 1771.1 (enacted by SB 854) provides that a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal (subject to the requirements of Section 4104 of the Public Contract Code), or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5. Every bidding contractor shall list the contractor's current DIR registration number, and the current DIR registration number of all listed subcontractors, on the Subcontractor and Local Business Enterprise (LBE) Participation Verification Form included in the contractor's bid.

Pursuant to Labor Code Section 1771.1(b): (1) any bid received from a contractor that is not currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5 **shall be rejected as non-responsive**; and (2) any bid listing one or more subcontractors on the bidder's Subcontractor and Local Business Enterprise (LBE) Participation Verification Form that are not currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5, **shall be rejected as non-responsive**, unless the listing was an inadvertent error and any of the conditions specified in Labor Code Section 1771.1(c) apply.

This contract also is subject to compliance monitoring and enforcement by the DIR. For all contracts awarded on or after April 1, 2015, California Labor Code Section 1771.4 (enacted by SB 854) requires the contractor and all subcontractors to furnish electronic payroll records directly to the Labor Commissioner (in addition to City staff via the City's electronic system).

A Fact Sheet summarizing the provisions of SB 854 is attached. This is provided solely for informational purposes, and does not in any way affect the contractor's and subcontractors' obligation to comply in all respects with the provisions of SB 854, including the provisions referenced above, as well as all other applicable laws and regulations.

The contractor shall disseminate these provisions to every lower-tier subcontractor and vendor required to provide labor compliance documentation.

All questions regarding the City's Labor Compliance Program should be directed to the Department's contracts staff or the Labor Compliance Officer at (916) 808-4011.

Pursuant to Sacramento City Code Section 3.60.190, all contractors and subcontractors shall comply with Section 1777.5 et seq., of the California Labor Code governing the employment of apprentices. Pursuant to Sacramento City Code Section 3.60.250 and Public Contract Code Section 22300, any contract awarded pursuant to this invitation to bid shall contain a provision permitting the substitution of securities for monies withheld to ensure performance under the contract, in accordance with the requirements and form specified by the City.

Bid protests must be filled and maintained in accordance with the provisions of Sections 3.60.460 through 3.60.560 of the Sacramento City Code. Bid protests that do not comply with Sections 3.60.460 through 3.60.560 of the Sacramento City Code shall be invalid and shall not be considered. A bid protest fee of \$750.00 is required at the time of filing. The term "bid protest" includes any bid protest that (1) claims that one or more bidders on this contract should be disqualified or rejected for any reason, (2) contests a City staff recommendation to award this contract to a particular bidder, or (3) contests a City staff recommendation to disqualify or reject one or more bidders on this contract. A copy of Sections 3.60.460 through 3.60.560 of the Sacramento City Code may be obtained from the Project Manager, or from the City Clerk, located at 915 I Street, 5th Floor, Sacramento, CA 95814.

The Project Manager's contact information is:

Mark Elliott, Department of Utilities, Engineering & Water Resource Division
1395 35th Avenue, Sacramento, CA 95822

Phone: (916) 808-8894 / Fax: (916) 808-1497/Email: MElliott@cityofsacramento.org

THE FOLLOWING DOCUMENTS
ARE TO BE COMPLETED AND
SUBMITTED WITH THE BID PACKAGE

Contractor's Name: Zim Industries Inc.
 (Please print)

CITY OF SACRAMENTO

SEALED PROPOSAL

(MUST BE SIGNED BY BIDDER)

The Sealed Proposal will be received not later than **March 2, 2016**, at the Office of the City Clerk, New City Hall, at 915 I Street, 5th Floor, Public Counter, Sacramento, California and opened at **2:00 PM**, or as soon thereafter as business allows, on **March 2, 2016**, by the Office of the City Clerk, 915 I Street, Historic City Hall, 2nd Floor, Hearing Room, Sacramento, California.

TO THE HONORABLE CITY COUNCIL:

The undersigned hereby proposes and agrees to furnish any and all required labor, material, transportation, and services for

FAIRBAIRN WATER TREATMENT PLANT GROUNDWATER WELL
(PN: Z14120200) (B16141321022)

in the City and County of Sacramento, California.

TOTAL BID: Three Hundred Sixty-one Thousand, Nine Hundred (\$ 361,963)
Sixty-Three dollars and no cents

The work herein described is to be performed in strict conformity with the Plans, City of Sacramento Standard Specifications (Resolution No. 89-216) and these Special Provisions, all as on file in the Office of the City Clerk, at the following unit prices.

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total
1	Project Mobilization/Well Permit	1	LS	\$ <u>71,900</u>	\$ <u>71,900</u>
2	36" O.D. x 3/8" Wall Conductor Casing and Sanitary Seal	55	LF	\$ <u>550</u>	\$ <u>30,250</u>
3	Borehole Drilling – 32" Diameter	265	LF	\$ <u>160</u>	\$ <u>42,400</u>
4	Geophysical Surveys (E-Log, Caliper, and Deviation)	1	LS	\$ <u>6,100</u>	\$ <u>6,100</u>
5	Blank Well Casing – 20.00" O.D. x 5/16" Wall Type 304 Stainless Steel	247	LF	\$ <u>430</u>	\$ <u>106,210</u>
6	Wire-Wrapped Well Screen – 20.00" O.D. Type 304 Stainless Steel	70	LF	\$ <u>240</u>	\$ <u>16,800</u>
7	2" Dia. Sounding Pipe Sch. 10 Type 304 Stainless Steel	438	LF	\$ <u>25</u>	\$ <u>10,950</u>
8	3" Dia. Gravel Fill Pipe, Sch. 40 BSP	181	LF	\$ <u>13</u>	\$ <u>2,353</u>
9	Gravel Envelope & Transition Seal	160	LF	\$ <u>70</u>	\$ <u>11,200</u>
10	Annular Seal	160	LF	\$ <u>60</u>	\$ <u>9,600</u>
11	Test Pump Installation	1	LS	\$ <u>9,000</u>	\$ <u>9,000</u>
12	Well Development	1	LS	\$ <u>26,700</u>	\$ <u>26,700</u>
13	Well and Aquifer Testing	24	HR	\$ <u>350</u>	\$ <u>8,400</u>
14	Plumbness & Alignment Testing	1	LS	\$ <u>2,500</u>	\$ <u>2,500</u>
15	Video Survey	1	LS	\$ <u>1,100</u>	\$ <u>1,100</u>

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total
16	Site Cleanup & Records	1	LS	\$ 4,200	\$ 4,200
17	Well Disinfection	1	LS	\$ 1,300	\$ 1,300
18	Stand-by-Time	10	HR	\$ 100	\$ 1,000

TOTAL BID: \$ 36,963

The undersigned agrees to execute the Agreement and provide City the executed Agreement, the required insurance certificates, endorsements, and waivers of subrogation, and the required surety bonds within ten (10) calendar days after the undersigned's receipt of the City's notice that the undersigned will be recommended for Contract award and prior to award of the Contract by the City Council.

In determining the amount bid by each bidder, City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Proposal. When such a mathematical error appears on the Proposal, the City shall have the right to correct such error and to compute the total amount bid by said bidder on the basis of the corrected figure or figures.

When the unit price of an item is required to be set forth in the Proposal, and the total for the item set forth separately does not agree with a figure derived by multiplying the item unit price times the Engineer's estimate of the quantity of work to be performed for said item, the item unit price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the policy of the City's bidding procedures. The total paid for each such item of work shall be based upon the item unit price and not the total price.

Should the Proposal contain only a total price for an item and the item unit price is omitted, the City shall determine the item unit price by dividing the total price of the item by the Engineer's estimate of the quantity of work to be performed for the item of work.

If the Proposal contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Proposal shall be disregarded.

It is understood that this bid is based upon completion of the work within a period of **ninety (90) CALENDAR days** commencing on the date specified in the Notice to Proceed.

The amount of liquidated damages to be paid by the Contractor for failure to complete the work by the completion date (as extended, if applicable) shall be **one thousand dollars (\$1,000.00) for each calendar day**, continuing to the time at which the work is completed. Such amount is the actual cash value agreed upon as the loss to the City resulting from the default of the Contractor.

The undersigned represents and warrants that he/she has examined the location of the proposed work and is familiar with the conditions at the place where the work is to be done. The undersigned further represents that he/she has reviewed and understands the Plans, Special Provisions, and other contract documents, and the undersigned is satisfied with all conditions for the performance of the work.

Additionally, the undersigned shall include written documentation with the Sealed Proposal of previous satisfactory experience in construction of a new potable well, in accordance with the following:

- **The undersigned shall provide documentation for a minimum of three (3) projects of similar size and scope for the construction of a new potable well performed by the undersigned for a municipality or other public agency within the last five years. The documentation for each project shall describe the work performed, including the size, depth, casing material, and screened section materials of the well, the contract amount and duration, the time period of performance, and shall include the name, address and telephone number of the owner agency or municipality. The documentation also shall include the name of a contact person for each owner who is familiar with the work performed. The above documentation shall be included with the Sealed Proposal.**
- **A Sealed Proposal that does not include the above required documentation may be rejected as non-responsive.**

Please note that information included in the above documentation and/or obtained from such other owner agency or municipality or from another source regarding the bidder's performance on another public project also may be used by the City in determining whether the bidder is a responsible bidder.

The undersigned has carefully checked all of the above figures and understands that the City of Sacramento will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

This proposal shall not be withdrawn for the time periods specified in Section 3-2 of the City of Sacramento Standard Specifications for award of contract to respective low bidders. This proposal is submitted in accordance with Chapter 3.60 of the Sacramento City Code and Sections 1, 2, and 3 of the City of Sacramento Standard Specifications.

In accordance with Standard Specification Section 3-2, the City shall award this contract to the lowest responsible bidder, if such award is made, within forty-five (45) working days after opening of the Proposals. The City reserves the right to reject any and all bids.

1 Name, address, & telephone number of owner:
Fair Oaks Water District
10326 Fair Oaks Blvd
Fair Oaks, CA 95628
(916) 967-5723

2 Name of project:
Drill Madison Well

3 Location of project:
Alaire View Drive and Madison Ave
Fair Oaks, CA

4 Brief description of work involved:
Drill Well 18" X 480' Depth, 60' Conductor, Airlift development, Geophysical logging,
Development and test pumping

5 Contract amount:
\$581,945.00

6 Date completed:
October 1, 2014

7 Name, address, & phone number of architect or engineer:
GEI Consultants
2868 Prospect Prak Dr Suite 400
Ranch Cordova, CA 95670
(916) 631-4566

8 Name of owner's project engineer:
Richard Shatz
(916) 631-4566

- 1 Name, address, & telephone number of owner:
Citrus Heights Water District
6230 Sylvan Rd
Citrus Heights, CA 95610
(916) 725-6873
- 2 Name of project:
Skycrest Well
- 3 Location of project:
Southgrove and Wisconsin
Citrus Heights, CA
- 4 Brief description of work involved:
Drill Well 18" X 390' Depth, 60' Conductor, 3 Zone Tests, Airlift development,
Geophysical logging, Development and test pumping
- 5 Contract amount:
\$494,944.00
- 6 Date completed:
August 21, 2014
- 7 Name, address, & phone number of architect or engineer:
NV5
2525 Natomas Dr, Suite 300
Sacramento, CA
(916) 641-9100
- 8 Name of owner's project engineer:
Linda Scroggs
(916) 641-9100

1 Name, address, & telephone number of owner:
CITY OF DAVIS
1717 FIFTH STREET
DAVIS, CA 95616
(916) 757-5686

2 Name of project:
PRODUCTION WELL #34

3 Location of project:
COMMUNITY GARDENS & FIFTH STREET

4 Brief description of work involved:
Drilled Water Wells - (1) pilot hole to '1593, 633' of gravel fill pipe
833' of sounding pipe, 23.5 hrs of well development

5 Contract amount:
\$815,164.00

6 Date of completion of contract:
10/09-1/10

7 Name, address, & phone number of architect or engineer:
CITY OF DAVIS
1717 FIFTH STREET
DAVIS, CA 95616
(916) 757-5686

8 Name of owner's project engineer:
Matt Deussenberry
(916) 757-5686

1 Name, address, & telephone number of owner:
CITY OF FIREBAUGH
1133 P ST
FIREBAUGH, CA 93622
(559) 659-2043-5600

2 Name of project:
DRILL WELL 17

3 Location of project:
VAZQUEZ AND 15TH
FIREBAUGH CA

4 Brief description of work involved:
Drilled Water Well - 16" x 218', Install sanitary seal, Title 22 water analysis
16 Hours of swabbing, 53 hrs of well development

5 Contract amount:
\$172,705.00

6 Date of completion of contract:
7/15/2014

7 Name, address, & phone number of architect or engineer:
KENNEDY/JENKS CONSULTANTS
10850 GOLD CENTER DR
RANCHO CORDOVA, CA
(916) 858-2700

8 Name of owner's project engineer:
Ryan Young, P.E.
(916) 858-2700

1 Name, address, & telephone number of owner:
CITY OF FRESNO
1721 VAN NESS AVE
FRESNO, CA 93721
(559) 621-5600

2 Name of project:
Drill Two Wells at PS 345

3 Location of project:
185 S Burgan
Fresno CA

4 Brief description of work involved:
Drilled 2 Water Wells- 12" x 835', 620' of gravel fill pipe
240' of sounding pipe, 24 Hours of swabbing, 48 hrs of well development

5 Contract amount:
\$531,160.00

6 Date of completion of contract:
1/23/2013

7 Name, address, & phone number of architect or engineer:
CITY OF FRESNO
1721 VAN NESS AVE
FRESNO, CA 93721
(559) 621-5600

8 Name of owner's project engineer:
JIM POLSGROVE
(559) 621-5600

1 Name, address, & telephone number of owner:
EPC Corporation
6615 West Sate Ave Suite 2
Glendale AZ, 85301
(623) 934-0225

2 Name of project:
P-331 New Potable Water Well

3 Location of project:
Lemoore NAS
Lemoore, CA

4 Brief description of work involved:
Drill Well 16" X 1120' Depth, Zone Tests, Airlift development, Geophysical logging,
Development and test pumping

5 Contract amount:
\$1,226,232.00

6 Date of completion of contract:
9/1/2013

7 Name, address, & phone number of architect or engineer:
EPC Corporation
6615 West Sate Ave Suite 2
Glendale AZ, 85301
(623) 934-0225

8 Name of owner's project engineer:
Heath Collins
(623) 934-0225

1 Name, address, & telephone number of owner:

Grizzly Construction

PO BOX 26793

Fresno, CA 93729

(559) 323-1200

2 Name of project:

DRILL WELL #6

3 Location of project:

W WOOD AND S LAFAYETTE

Riverdale, CA

4 Brief description of work involved:

Mobilization, 16" x 1860' Well, Set 30" Conductor, Zone Tests

Swabbing, Test Pumping, Concrete Pump Pad. Pump Motor and Pump Bowls

5 Contract amount:

\$724,430.00

6 Date of completion of contract:

Started November 2013 - Finished June 2014

7 Name, address, & phone number of architect or engineer:

Provost and Pritchard

286 W Cromwell Ave

Fresno, CA 93711

(559) 675-7817

8 Name of owner's project engineer:

Herb Simmons

(559) 675-7817

1 Name, address, & telephone number of owner:

STEVE DOVALI CONSTRUCTION

8461 E OLIVE AVE

FRESNO, CA 93727

(559) 255-7603

2 Name of project:

REGIONAL CONSOLIDATION OF THREE WATER SYSTEMS

3 Location of project:

9th Ave and Hanford Armona

Hanford, CA

4 Brief description of work involved:

Mobilization, 16" x 1522', Set 30" Conductor, E-Log, Swabbing

Test Pumping, Pump Motor, Pump Bowl

5 Contract amount:

\$1,115,670.00

6 Date of completion of contract:

Started February 2015 - Well Finished June 2015

Estimated date of completion of pump portion - February 2016

7 Name, address, & phone number of architect or engineer:

STEVE DOVALI CONSTRUCTION

8461 E OLIVE AVE

FRESNO, CA 93727

(559) 255-7603

1 Name, address, & telephone number of owner:
CITY OF CORCORAN – PUBLIC WORKS
832 WHITLEY AVE
CORCORAN, CA 93212
(209) 992- 2151

2 Name of project:
DRILL WELL 11A

3 Location of project:
4TH AND WAUKENA
Corcoran, CA

4 Brief description of work involved:
Mobilization, 18" x 16" x 1491' Well, Set 36" Conductor, E-Log, Caliper Log
Swabbing, Test Pumping

5 Contract amount:
\$732,421.00

6 Date of completion of contract:
Started August 2015 – Finished October 2015

7 Name, address, & phone number of architect or engineer:
CITY OF CORCORAN – PUBLIC WORKS
832 WHITLEY AVE
CORCORAN, CA 93212
(209) 992- 2151

8 Name of owner's project engineer:
Baldo Rodriguez
(209) 992- 2151

1 Name, address, & telephone number of owner:

COUNTY OF TULARE

2800 W. BURREL AVE

VISALIA, CA 93291

(209) 733-6977

2 Name of project:

EAST PORTVILLE EMERGENCY WATER PROJECT

3 Location of project:

PORTERVILLE, CA

4 Brief description of work involved:

Mobilization, 16" x 1155' Well, Set 36" Conductor, Zone Tests

Swabbing, Test Pumping, Well Video

5 Contract amount:

\$849,145.00

6 Date of completion of contract:

Started August 2015 - Estimated Finish January 2016

7 Name, address, & phone number of architect or engineer:

COUNTY OF TULARE

2800 W. BURREL AVE

VISALIA, CA 93291

(209) 733-6977

8 Name of owner's project engineer:

Denice England

(209) 733-6977

BID DEPOSIT ENCLOSED IN THE FOLLOWING FORM:

\$ 10% of Bid Amount not less than ten (10) percent of amount bid.

- CERTIFIED CHECK
- MONEY ORDER
- CASHIERS'S CHECK
- BID BOND

FOR CITY USE ONLY	
TYPE OF DEPOSIT	
<input checked="" type="checkbox"/>	Bid Bond
<input type="checkbox"/>	Cashier/Certified Check
<input type="checkbox"/>	Other _____
Reviewer's Initials: <u>W</u>	

CONTRACTOR

Addendum No. 1 By 7/8-2016 Zim Industries, Inc

Addendum No. 2 _____ By: Curt B Zimmerer
(Signature)

Addendum No. 3 _____ Title: President, Curt B. Zimmerer

Addendum No. 4 _____ Address: 4545 E. Lincoln Ave

No PO Box - Physical Address ONLY

Fresno, CA 93725
City STATE ZIP Code

Telephone No. (559) 834-1551

Fax No. (559) 834-5156

Email curtezimindustries.com

(Federal Tax ID # or Social Security #)
Under penalty of perjury, I certify that the Taxpayer Identification Number and all other information provided here are correct.

94-2597729

DIR Registration Number: 1000003978

Valid Contractor's License No. 440537 Classification A, C61/02, C57 is held by the bidder.

Expiration date 06/30/2017 Representation made herein are true and correct under penalty or perjury

PN: Z14120200 (B16141321022)

CORPORATE RESOLUTION TO EXECUTE CONTRACTS

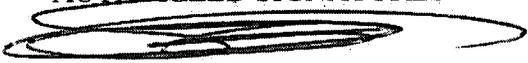
At a meeting of the corporation today, after considerable discussion, the following resolution was moved, seconded and unanimously adopted;

Resolved that any of the following persons, William P. Zimmerer, Robert J. Zimmerer, Curt B. Zimmerer, John C. Zimmerer, Kevin A. Newlen, Brian P. Zimmerer, or Boyd C. Zimmerer be, and they hereby are, authorized without further authorization of the board of directors to enter into and execute on behalf of the corporation any and all contracts to do corporate business for ZIM INDUSTRIES, INC. d.b.a. Bakersfield Well and Pump Company.

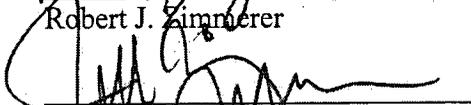
In witness whereof, I have hereunto set my hand as such Secretary, and affixed the corporate seal of said corporation this 19th day of November 2015.


Robert J. Zimmerer - Secretary

AUTHORIZED SIGNATURES

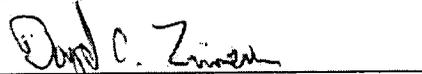

William P. Zimmerer

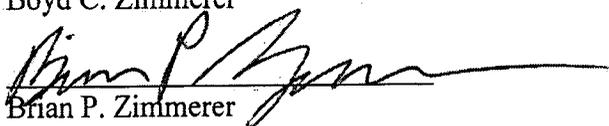

Robert J. Zimmerer


John C. Zimmerer


Curt B. Zimmerer


Kevin A. Newlen


Boyd C. Zimmerer


Brian P. Zimmerer

**Fairbairn Water Treatment Plant Groundwater Well
(PN: Z14120200)**

ADDENDUM #1

February 18, 2016

To All Potential Bidders:

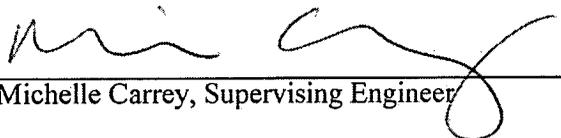
Attached hereto are addenda items, which shall be incorporated into the Plans and Specifications for the above noted project. These changes shall be considered as part of the original documents, as if they were originally provided therein, and as such shall be used as contractual documents. All other terms, conditions, and specifications of the bid remain unchanged. Bidders must acknowledge receipt of this addendum prior to the hour and date specified for bids to be received by one of the following methods:

- (a) By acknowledging receipt on the sealed proposal in the space provided. *CBZ*
- (b) By separate letter that includes a reference to the Project Name and the Addendum Number.

Failure to acknowledge receipt of this addendum in one of the above methods and cause acknowledgment to be received prior to the hour and date specified for receipt of proposals **may result in rejection of your proposal.** If by virtue of this addendum you decide to change a proposal already submitted, such change may be made by letter, provided such letter makes reference to the Project Name and this Addendum, and is received prior to the hour and date specified for receipt of proposals.

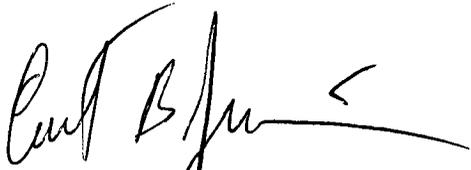
For any questions related to this addendum, contact the Project Manager, Mark Elliott at (916) 808-8894.

Sincerely,


Michelle Carrey, Supervising Engineer

Addendum
Enclosure

cc: Distribution List
Planholders


Curt B. Zimmer
President
Zim Industries, Inc.

Department of Utilities
916-808-1400
1395 35th Ave
Sacramento, CA 95822

**Fairbairn Water Treatment Plant Groundwater Well
(PN: Z14120200)**

Item #1 – Special Provisions – DELETE Specification Section 4.01 A. from the contract documents and REPLACE with the following: “Section 4.01 A. - A pre-bid meeting will be held on February 25, 2016 at 10 a.m. to discuss the site specific project requirements.”

City of SACRAMENTO

Subcontractor and Local Business Enterprise Participation Form For Public Projects over \$100,000 (use only base bid amount to estimate dollar value) THIS FORM MUST BE SUBMITTED WITH THE SEALED BID PROPOSAL

To be eligible for award of this contract, the bidder shall list the business entities used to attain the 5% LBE requirement. Additionally, the bidder shall list all other subcontractors who perform work, render service, or provide materials in an amount in excess of one-half of 1 percent of the total bid amount. In the case of bids for the construction of streets and highways, including bridges, subcontractors whose subcontract value exceeds one-half of 1 percent of the total bid or ten thousand dollars (\$10,000), whichever is greater, shall be listed. Estimated dollar values shall be provided for all work / services listed. The failure to attain the 5% LBE participation or the inclusion of false information or the omission of required information will render the bid non-responsive.

Prime Contractor Name	Zim Industries, Inc.
Prime Contractor Address	4545 E. Lincoln Ave Fresno, CA 93725
(REQUIRED) Prime Contractor DIR Registration #	

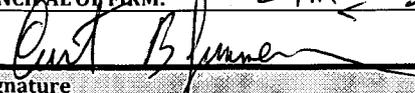
Date	03/01/2016
Bid Amount	\$ 361,963
Is Prime LBE?	Yes <input type="radio"/> No <input checked="" type="radio"/>

Business Name	License Number	Address	City, State, Zip	Contact Person	Phone	Subcontractor DIR Registration # (subject to verification)	LBE?	Type of Work, Services, or Supplies to be provided to complete contract	Estimated Dollar Value of Work, Services or Supplies to be Performed of Provided
Ramos Oil	N/A - Supplier	PO Box 40111	West Sacramento, CA 95691-0401	Vicky	(916) 371-2570	N/A Supplier	<input checked="" type="radio"/> Yes <input type="radio"/> No	fuel	\$ 18,500
Cemex	N/A - Supplier	PO Box 30710	San Francisco, CA 94160-0710	Heather	(707) 580-3138	N/A Supplier	<input checked="" type="radio"/> Yes <input type="radio"/> No	Concrete	\$ 2,000 ^{ce}
West Coast Logging	N/A	PO Box 2797	Rancho - Cardona 95741-	Mark Sharpless	(916) 858-8148	1000003552	<input type="radio"/> Yes <input checked="" type="radio"/> No	well logging & gyro	\$ 6,000 ^{ce}

COPY AND ATTACH ADDITIONAL SHEETS AS NECESSARY

I hereby certify that each subcontractor listed on this Subcontractor and LBE Participation Form has been notified that it has been listed and has consented in writing to its name being submitted for this contract. The Prime Contractor also certifies that it will notify each subcontractor listed on this Form in writing if the contract award is made to the Prime Contractor, and will make all documentation relevant to the subcontractor and LBE participation available to City of Sacramento upon request. The Prime Contractor further certifies that all of the information contained in this Form is true and correct and acknowledges that the City will rely on the accuracy of this information in awarding the contract.

PRINCIPAL OF FIRM:

	President, Curt B. Zimmerer	03/01/2016
Signature	Title	Date

Form Revised
3/9/15

DRUG-FREE WORKPLACE POLICY AND AFFIDAVIT

BID MAY BE DECLARED NONRESPONSIVE IF THIS FORM (COMPLETED) IS NOT ATTACHED.
Pursuant to City Council Resolution CC90-498 dated 6/26/90 the following is required.

The undersigned contractor certifies that it and all subcontractors performing under this contract will provide a drug-free workplace by:

1. Publishing a "Drug-Free Workplace" statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Establishing a Drug-Free Awareness Program to inform employees about:
 - a. The dangers of drug abuse in the workplace.
 - b. The contractor's policy of maintaining a drug-free workplace.
 - c. Any available drug counseling, rehabilitation, and employee assistance program.
 - d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.
3. Notify employees that as a condition of employment under this contract, employees will be expected to:
 - a. Abide by the terms of the statement.
 - b. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace.
4. Making it a requirement that each employee to be engaged in the performance of the contract be given a copy on the "Drug-Free Workplace" statement.
5. Taking one of the following appropriate actions, within thirty (30) days of receiving notice from an employee or otherwise receiving such notice, that said employee has received a drug conviction for a violation occurring in the workplace:
 - a. Taking appropriate disciplinary action against such an employee, up to and including termination; or
 - b. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement or other appropriate agency.

* I certify that no person employed by this company, corporation, or business has been convicted of any criminal drug statute violation on any job site or project where this company, corporation, or business was performing work within three years of the date of my signature below.

EXCEPTION: None

Date	Violation Type	Place of Occurrence
If additional space is required use back of this form.		

*The above statement will also be incorporated as a part of each subcontract agreement for any and all subcontractors selected for performance on this project.

IN THE EVENT THIS COMPANY, CORPORATION, OR BUSINESS IS AWARDED THIS CONSTRUCTION CONTRACT, AS A RESULT OF THIS BID; THE CONTRACTOR WITH HIS/HER SIGNATURE REPRESENTS TO THE CITY THAT THE INFORMATION DISCLOSED IN THIS DOCUMENT IS COMPLETE AND ACCURATE. IT IS UNDERSTOOD AND AGREED THAT FALSE CERTIFICATION IS SUBJECT TO IMMEDIATE TERMINATION BY THE CITY.

The Representations Made Herein On This Document Are Made Under Penalty Of Perjury.

CONTRACTOR'S NAME: Zim Industries, Inc
BY: Curt B. Zimmerman Signature Title: President Date: 03/01/2016
Curt B. Zimmerman

Effects of violations: a. Suspension of payments under this contract. b. Suspension or termination of the contract. c. Suspension or debarment of the contractor from receiving any contract from the City of Sacramento for a period not to exceed five years.

MINIMUM QUALIFICATIONS QUESTIONNAIRE

Sacramento City Code Section 3.60.020 authorizes the Sacramento City Council to adopt standard minimum qualifications for bidders on competitively bid public works construction projects, and requires, among other provisions, that a bidder meet such minimum qualifications at the time of bid opening in order to bid. On July 31, 2007, the City Council adopted Resolution No. 2007-574 establishing these standard minimum qualifications. Pursuant to City Code section 3.60.020, a bidder failing to meet these minimum qualifications at the time of bid opening shall not be considered a responsible bidder for purposes of bidding on the subject project.

All bidders must demonstrate compliance with the minimum qualifications established by Resolution No. 2007-574 by completing all of the questions contained in this questionnaire. Bidder responses shall be limited to those operating business units, offices, branches and/or subsidiary divisions of the bidder that will be involved with the performance of any project work if awarded the contract. If a bidder answers "yes" to any single question, fails to submit a fully completed questionnaire, or submits false information, this will result in a determination that the minimum qualifications are not met, and the bidder shall not be considered a qualified bidder for purposes of bidding on this contract. If two or more entities submit a bid on a contract as a Joint Venture, each entity within the Joint Venture must separately meet these minimum qualifications for the Joint Venture to be considered a qualified bidder.

The City of Sacramento ("City") shall make its determination on the basis of the submitted questionnaire, as well as any relevant information that is obtained from others or as a result of investigation by the City. While it is the intent of this questionnaire to assist the City in determining whether bidders possess the minimum qualifications necessary to submit bids on the City's competitively bid public works construction contracts, the fact that a bidder submits a questionnaire demonstrating that it meets these minimum qualifications shall not in any way limit or affect the City's ability to: (1) review other information contained in the bid submitted by the bidder, and additional relevant information, and determine whether the contractor is a responsive and/or responsible bidder; or (2) establish pre-qualification requirements for a specific contract or contracts.

By submitting this questionnaire, the bidder consents to the disclosure of its questionnaire answers: (i) to third parties for purposes of verification and investigation; (ii) in connection with any protest, challenge or appeal of any action taken by the City; and (iii) as required by any law or regulation, including without limitation the California Public Records Act (Calif. Gov't Code sections 6250 et seq.). Each questionnaire must be signed under penalty of perjury in the manner designated at the end of the form, by an individual who has the legal authority to bind the bidder submitting the questionnaire. If any information provided by a bidder becomes inaccurate, the bidder shall immediately notify the City and provide updated accurate information in writing, under penalty of perjury.

QUESTIONNAIRE

NOTICE: For firms that maintain other operating business units, offices, branches and/or subsidiary divisions that will not be involved with the performance of any project work if the firm is awarded the contract, references hereafter to "your firm" shall mean only those operating business units, offices, branches and/or subsidiary divisions that will be involved with the performance of any project work.

All of the following questions regarding "your firm" refer to the firm (corporation, partnership or sole proprietor) submitting this questionnaire, as well as any firm(s) with which any of your firm's owners, officers, or partners are or have been associated as an owner, officer, partner or similar position within the last five years

The firm submitting this questionnaire shall not be considered a responsible bidder if the answer to any of these questions is "yes", or if the firm submits a questionnaire that is not fully completed or contains false information.

1. Classification & Expiration Date(s) of California Contractor's License Number(s) held by firm:

License # 440537; Classifications: A, C61/D21, C57; Expiration Date: 6/30/2017

2. Has a contractor's license held by your firm and/or any owner, officer or partner of your firm been revoked at anytime in the last five years?

Yes

No

3. Within the last five years, has a surety firm completed a contract on your firm's behalf, or paid for completion of a contract to which your firm was a party, because your firm was considered to be in default or was terminated for cause by the project owner?

Yes

No

4. At the time of submitting this minimum qualifications questionnaire, is your firm ineligible to bid on or be awarded a public works contract, or perform as a subcontractor on a public works contract, pursuant to either California Labor Code section 1777.1 (prevailing wage violations) or Labor Code section 1777.7 (apprenticeship violations)?

Yes

No

5. At any time during the last five years, has your firm, or any of its owners, officers or partners been convicted of a crime involving the awarding of a contract for a government construction project, or the bidding or performance of a government contract?

Yes

No

6. Answer either subsection A or B, as applicable:

- A. Your firm has completed three or more government construction contracts in Sacramento County within the last five years: Within those five years, has your firm been assessed liquidated damages on three or more government construction contracts in Sacramento County for failure to complete contract work on time?

NOTE: If there is a pending administrative or court action challenging the assessment of liquidated damages on a government contract within the last five years, you need not include that contract in responding to this question.

Yes No Not applicable

OR

- B. Your firm has not completed at least three government construction contracts in Sacramento County within the last five years: Within the last three years, has your firm been assessed liquidated damages on three or more government construction contracts for failure to complete contract work on time?

NOTE: If there is a pending administrative or court action challenging an assessment of liquidated damages on a government contract within the last three years, you need not include that contract in responding to this question.

Yes No Not applicable

7. In the last three years has your firm been debarred from bidding on, or completing, any government agency or public works construction contract for any reason?

NOTE: If there is a pending administrative or court action challenging a debarment, you need not include that debarment in responding to this question.

Yes No

8. Has CAL OSHA assessed a total of three or more penalties against your firm for any "serious" or "willful" violation occurring on construction projects performed in Sacramento County at any time within the last three years?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes No

9. Answer either subsection A or B, as preferred:

A. In the last three years has your firm had a three year average Workers' Compensation experience modification rate exceeding 1.1?

Yes

No

OR

B. In the last three years has your firm had a three-year average incident rate for total lost workday cases exceeding 10?

NOTE: Incident rates represent the number of lost workday cases per 100 full-time workers and is to be calculated as: $(N/EH) \times 200,000$, where

N = number of lost workday cases (as defined by the U.S. Dept. of Labor, Bureau of Labor Statistics)
EH = total hours worked by all employees during the calendar year
200,000 = base for 100 equivalent full-time working (working 40 hours per week, 50 weeks per year)

Yes

No

10. In the past three years, has the federal EPA, Region IX or a California Air Quality Management District or Regional Water Quality Control Board assessed penalties three or more times, either against your firm, or against the project owner for a violation resulting in whole or in part from any action or omission by your firm on a project on which your firm was a contractor in Sacramento County?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes

No

11. In the past three years, has the federal EPA, Region IX or a California Air Quality Management District or Regional Water Quality Control Board assessed a single penalty of \$100,000 or more, either against your firm, or against the project owner for a violation resulting in whole or in part from any action or omission by your firm on a project on which your firm was the contractor in Sacramento County?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes

No

12. In the past three years, have civil penalties been assessed against your firm pursuant to California Labor Code 1777.7 for violation of California public works apprenticeship requirements, three or more times?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes

No

13. In the past three years, has a public agency in California withheld contract payments or assessed penalties against your firm for violation of public works prevailing wage requirements, three or more times?

NOTE: If there is a pending administrative or court action appealing a withholding or penalty assessment, you need not include that withholding or penalty assessment in responding to this question.

Yes

No

14. Has your firm been assessed penalties for violation of public works prevailing wage requirements in California, in an aggregate amount for the past three years of \$50,000 or more?

NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

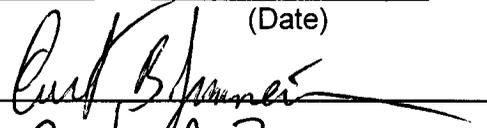
Yes

No

VERIFICATION AND SIGNATURE

I, the undersigned, certify and declare that I have read all the foregoing answers to this Minimum Qualifications Questionnaire, and know their contents. The matters stated in these Questionnaire answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signed at Fresno County, Fresno, CA, on 03/01/2016
(Location) (Date)

Signature: 

Print name: Curt B. Zimmerer

Title: President - Zim Industries, Inc.

NOTE: If two or more entities submit a bid on a contract as a Joint Venture, each entity within the Joint Venture must submit a separate Minimum Qualifications Questionnaire.

REQUIREMENTS OF THE NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

INTRODUCTION

The Sacramento Non-Discrimination In Employee Benefits Code (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

APPLICATION

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding \$100,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to permits for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

DEFINITIONS

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use or occupancy of real property owned by others, including leases, concessions, franchises and easements.

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

"Contractor" means any person or persons, firm partnership or corporation, company, or combination thereof, that enters into a Contract with the City. "Contractor" does not include a public entity.

"Domestic Partner" means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

"Employee Benefits" means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees. "Employee benefits" shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

CONTRACTOR'S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee's name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form (attachment "A"), signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directing on a City contract, and (at the time of hire), each new employee, a copy of the notification provided as attachment "B."

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as attachment "C."

**DECLARATION OF COMPLIANCE
Equal Benefits Ordinance**

Zim Industries, Inc.
Name of Contractor

4545 E. Lincoln Ave. Fresno, CA 93725
Address

The above named contractor ("Contractor") hereby declares and agrees as follows:

1. I have read and understand the Requirements of the Non-Discrimination In Employee Benefits Code (the "Requirements") provided to me by the City of Sacramento ("City") in connection with the City's request for proposals or other solicitations for the performance of services, or for the provision of commodities, under a City contract or agreement ("Contract").
2. As a condition of receiving the City Contract, I agree to fully comply with the Requirements, as well as any additional requirements that may be specified in the City's Non-Discrimination in Employee Benefits Code codified at Chapter 3.54 of the Sacramento City Code (the "Ordinance").
3. I understand, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance, are any of the following:
 - a. Bereavement Leave
 - b. Disability, life, and other types of insurance
 - c. Family medical leave
 - d. Health benefits
 - e. Membership or membership discounts
 - f. Moving expenses
 - g. Pension and retirement benefits
 - h. Vacation
 - i. Travel benefits
 - j. Any other benefit offered to employees

I agree that should I offer any of the above listed employee benefits, that I will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

4. I understand that I will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:
 - a. In the event that the actual cost of providing a benefit to a domestic partner or spouse, exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, I will not be required to provide the benefit, nor shall it be deemed discriminatory, if I require the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
 - b. In the event I am unable to provide a certain benefit, despite taking reasonable measures to do so, if I provide the employee with a cash equivalent, I will not be deemed to be discriminating in the application of that benefit.
 - c. If I provide employee benefits neither to employee's spouses nor to employee's domestic partners.
 - d. If I provide employee benefits to employees on a basis unrelated to marital or domestic partner status.
 - e. If I submit, to the Program Coordinator, written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies which are to be enacted before the

first effective date after the first open enrollment process following the date the Contract is executed with the City.

I understand that any delay in the implementation of such policies may not exceed one (1) year from the date the Contract is executed with the City, and applies only to those employee benefits for which an open enrollment process is applicable.

- f. Until administrative steps can be taken to incorporate, in the infrastructure, nondiscrimination in employee benefits

The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date the Contract is executed with the City.

- g. Until the expiration of a current collective bargaining agreement(s) where, in fact, employee benefits are governed by a collective bargaining agreement(s).

- h. I take all reasonable measures to end discrimination in employee benefits by either requesting the union(s) involved agree to reopen the agreement(s) in order for me to take whatever steps are necessary to end discrimination in employee benefits or by my ending discrimination in employee benefits without reopening the collective bargaining agreement(s).

- i. In the event I cannot end discrimination in employee benefits despite taking all reasonable measures to do so, I provide a cash equivalent to eligible employees for whom employee benefits (as listed previously), are not available.

Unless otherwise authorized in writing by the City Manager, I understand this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or no longer than three (3) months from the date the Contract is executed with the City.

- 5. I understand that failure to comply with the provisions of Section 4. (a) through 4. (i), above, will subject me to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full; deemed ineligible for future contracts for up to two (2) years; the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
- 6. I understand and do hereby agree to provide each current employee and, within ten (10) days of hire, each new employee, of their rights under the Ordinance. I further agree to maintain a copy of each such letter provided, in an appropriate file for possible inspection by an authorized representative of the City. I also agree to prominently display a poster informing each employee of these rights.
- 7. I understand that I have the right to request an exemption to the benefit provisions of the Ordinance when such a request is submitted to the Procurement Services Division, in writing with sufficient justification for resolution, prior to contract award.

I further understand that the City may request a waiver or exemption to the provisions or requirements of the Ordinance, when only one contractor is available to enter into a contract or agreement to occupy and use City property on terms and conditions established by the City; when sole source conditions exist for goods, services, public project or improvements and related construction services; when there are no responsive bidders to the Ordinance requirements and the contract is for essential goods or services; when emergency conditions with public health and safety implications exist; or when the contract is for specialized legal services if in the best interest of the City.

8. In consideration of the foregoing, I shall defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the Requirements or of the Ordinance by me.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind the Contractor to the provisions of this Declaration.

Curt B. Zimmer
Signature of Authorized Representative

03/01/2016
Date 03/01/2016 *CDJ*

Curt B. Zimmerer
Print Name

President - Zim Industries, Inc.
Title



YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S
NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

On (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination In Employee Benefits By City Contractors Ordinance (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employees.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

You May . . .

- Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:

City of Sacramento
Contract Services Unit
915 I St., 2nd Floor
Sacramento, CA 95814

- Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:
 - Reinstatement, injunctive relief, compensatory damages and punitive damages
 - Reasonable attorney's fees and costs



YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S

NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

If you feel you have been discriminated against by your employer . . .

You May . . .

- o Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:

City of Sacramento
Contract Services Unit
915 I St., 2nd Floor
Sacramento, CA 95814
- o Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

Discrimination and Retaliation Prohibited.

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance . . .

You May Also . . .

Submit a written complaint to the City of Sacramento, Contract Services Unit, at the same address, containing the details of the alleged violation.

Construction and Demolition (C&D) Debris Recycling Requirements

As a condition of receiving this Contract, Contractor agrees to fully comply with the requirements specified herein for all demolition projects, as well as projects with a valuation of \$250,000 or more:

1. **Definitions.** For purposes of this section, the following terms, words and phrases shall have the following meanings:

“Certified C&D sorting facility” means a facility that receives C&D debris and/or processes C&D debris into its component material types for reuse, recycling, and disposal of residuals and possesses a valid certificate as a C&D sorting facility from the Sacramento Regional County Solid Waste Authority.

“Construction and demolition debris” or “C&D debris” means used or commonly discarded materials resulting from construction, repair, remodel or demolition operations on any pavement, house, building, or other structure, or from landscaping that are not hazardous as defined in California Health and Safety Code section 25100 et seq. Such materials include, but are not limited to, concrete, asphalt, wood, metal, brick, dirt, sand, rock, gravel, plaster, glass, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, masonry, plastic pipe, trees, and other vegetative matter resulting from land clearing and landscaping.

“Divert” or “diversion” means to use materials for any purpose other than disposal in a landfill or transformation facility. Methods to divert materials include on-site reuse of the materials, delivery of materials from the project site to a certified C&D sorting facility or a recycling facility, or other methods as approved in regulations promulgated by the City Department of Utilities.

“Franchised waste hauler” means a person who possesses a valid commercial solid waste collection franchise issued by the Sacramento Regional County Solid Waste Authority.

“Mixed C&D debris” means loads that include commingled recyclable and non-recyclable C&D debris generated at a project site.

“Recyclable C&D debris” means C&D debris required to be diverted from landfills as specified in the Waste Management Plan and returned to the economic mainstream in the form of raw material for new, reused or reconstituted products that meet the quality standards necessary to be used in the marketplace.

“Recycling facility” means a facility or operation that receives, processes, and transfers source-separated recyclable materials.

“Source-separated C&D debris” means recyclable C&D debris that is separately sorted and containerized at the site of generation by individual material type and segregated from mixed C&D debris prior to collection and transporting.

“Waste log” means a record detailing the management of C&D debris generated by the covered project, including the date and weight/volume of material by type that was salvaged, reused, recycled or disposed.

2. **Waste Management Plan.** A completed WMP (see **Attachment 1**) must be submitted to and approved by the City prior to commencing any work on the project. The WMP must specify the types of C&D debris that will be generated from the project; the manner in which C&D debris will be managed and/or stored on the project site; the manner in which recyclable C&D debris generated from the project will be recycled or reuse; the person who will haul, collect or transport the recyclable C&D debris from the project site; and the certified C&D sorting facility or recycling facility where recyclable C&D debris will be delivered. The WMP must be approved by the City prior to commencing any work on the project.

3. Contractor shall be solely responsible for diverting the recyclable C&D materials specified on the WMP. Mixed C&D debris shall be delivered to a SWA-certified C&D sorting facility only. Only the permit holder, the person who generates the waste, a franchised waste hauler, or the City of Sacramento can transport or haul mixed C&D debris. Source-separated C&D debris may be delivered by any person to any recycling facility that accepts such materials. (See **Attachment 2** for list of C&D Debris Haulers and Facilities).

4. During the course of the project, Contractor shall maintain a waste log (see **Attachment 3**), and keep all weight tickets or weight receipts, for all C&D debris hauled away from the project. At a minimum, the waste log shall specify the C&D debris generated by the project; the manner in which C&D debris was recycled or re-used; and the facility where the C&D debris was delivered.

5. Within 30 days after submitting the project completion report, Contractor shall submit to the City a completed waste log, along with copies of supporting weight tickets. Contractor shall maintain and keep accurate and complete records of all bills, weight receipts or weight tickets that were issued for the collection, transport or disposal of C&D debris for a period of one-year after submittal of the waste log. The records shall be made available for inspection, examination and audit by the City during the one-year retention period to validate the information provided in the WMP and in the waste log. If the City determines noncompliance by the Contractor after an audit has been conducted, Contractor shall reimburse the City for all costs incurred in performing the audit.

6. Failure by Contractor to comply with any provisions specified herein will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; imposition of a penalty, payable to the City (\$50-\$250 for first offense, \$251-\$500 for second offense, and \$501-\$1500 for subsequent offenses); and/or submission of a performance security deposit fee when submitting a permit application to the City for a project within one year of imposition of the penalty.

For questions or to obtain more information about the Recycling Requirements for C&D debris, contact the City of Sacramento, Solid Waste Services Division, 2812 Meadowview Road, Building 1, Sacramento, CA 95832, or telephone (916) 808-4833, or email C&D@cityofsacramento.org

C&D Debris Waste Management Plan

C&D Debris Waste Management Plan
 City of Sacramento Solid Waste Services
 2812 Meadowview Road, Building 1
 Sacramento, CA 95832
 Phone: (916) 808-4839 / Fax: (916) 808-4999
 C&D@cityofsacramento.org

Form submitted by:

Zim Industries, Inc.; (559) 834-1551; curt@zimindustries.com
 Please attach a business card, or put your name with a phone number and/or an email address.

This Waste Management Plan (WMP) must be submitted and approved before work can begin. Only one WMP is required for each public construction project. The administration fee and, if applicable, a security deposit must be submitted with this form to be approved. Administration fee is 0.04% of project bid amount (min \$40, max \$800); security deposit, if applicable, is 1% of bid amount (max \$10,000). The accompanying Waste Log must be submitted within 30 days of the project completion report, or a penalty may be imposed.

A. Building Project Information:

Job Address: APN: 005-0010-011 E. A. Fairbairn Water
 Contractor: Zim Industries, Inc.
 Address: 4545 E. Lincoln Ave
Fresno, CA 93725

Treatment Plant
 Engineering Estimate: \$336,000.00 (Total Contract)
 Phone: (559) 834-1551
 Email: curt@zimindustries.com

B. Briefly describe the project:

Drill, construct & develop one 20" diameter groundwater well to a depth of 317 feet.

C. Materials Required to be Recycled

50% of all debris must be recycled if generated during the course of your project. You can either source-separate them, which may be hauled by anyone, or mix them in one container and send the mixed C&D debris load to a Certified Mixed C&D Sorting Facility. Mixed C&D loads can only be hauled by a franchised hauler or self-hauled. Please see the Definitions section, on the next page, for more information.



D. Material Management

- How will C&D debris will be stored on the project site: Mixed C&D Source-Separated
- Company to haul away debris: Self-haul and/or Hauler TBD (if necessary)
- Facilities to receive debris: City Supplied Disposal Site

C&D Debris Haulers & Facilities

C&D Debris Waste Management Plan
City of Sacramento Solid Waste Services
2812 Meadowview Road, Building 1
Sacramento, CA 95832
Phone: (916) 808-4833 / Fax: (916) 808-4999
C&D@cityofsacramento.org

Certified Mixed C&D Facilities

Allied Waste / Elder Creek Transfer and Recovery	(916) 387-8425
Florin-Perkins Public Disposal	(916) 443-5120
L&D Landfill	(916) 737-8640
Waste Management / K&M Recycle America	(916) 452-0142

Franchised Haulers

ACES Waste Services, Inc.	(866) 488-8837	Elk Grove Waste Management, LLC	(916) 689-4052
Allied Waste Services	(916) 631-0600	Mini Drops, Inc.	(916) 686-8785
All Waste Systems, Inc.	(916) 456-1555	Norcal Waste Services of Sacramento	(916) 381-5300
Atlas Disposal Industries, LLC	(916) 455-2800	North West Recyclers	(916) 686-8575
California Waste Recovery Systems	(916) 441-1985	Waste Management of Sacramento	(916) 387-1400
Central Valley Waste Services, Inc.	(209) 369-8274	Waste Removal & Recycling	(916) 453-1400
City of Sacramento Solid Waste	(916) 808-4839	Western Strategic Materials, Inc.	(916) 388-1076

Recyclers*

Bell Marine	(916) 442-9089
C & C Paper Recycling	(916) 920-2673
EBI Aggregates	(916) 372-7580
International Paper	(916) 371-4634
Modern Waste Solutions	(916) 447-6800
PRIDE Industries, Inc.	(916) 640-1300
Recycling Industries, Inc.	(916) 452-3961
Sacramento Local Conservation Corps	(916) 386-8394
Smurfit-Stone Container Corporation	(916) 381-3340
Southside Art Center	(916) 387-8080
Spencer Building Maintenance, Inc.	(916) 922-1900

Recovery Stations & Landfills

Elder Creek Recovery & Transfer Station	(916) 387-8425
Kiefer Landfill	(916) 875-5555
L & D Landfill	(916) 383-9420
North Area Recovery Station	(916) 875-5555
Sacramento Recycling & Transfer Station	(916) 379-0500
Waste Management Recycle America	(916) 452-0142

More updated information can be found online at:
<http://www.cityofsacramento.org/utilities/>

* Please note that any facility may receive source-separated recyclable materials as long as it is authorized to do so by the State of California. This is not meant to be a complete list.

C&D Debris Waste Management Plan

C&D Debris Waste Management Plan
City of Sacramento Solid Waste Services
2812 Meadowview Road, Building 1
Sacramento, CA 95832
Phone: (916) 808-4839 / Fax: (916) 808-4999
C&D@cityofsacramento.org

E. Definitions.

Please read and understand these terms. Call Solid Waste at (916) 808-4833 if these terms are not clear to you. More information is also available online at <http://www.cityofsacramento.org/utilities/>.

1. **Self-haul or self-hauling:** This is when the general contractor or a subcontractor who is doing work on the project hauls their own waste materials for recycling or disposal. Note that a jobsite cleanup crew is not doing other work on the project and is not self-hauling. Jobsite cleanup crews need to be franchised in order to haul mixed C&D debris away.
2. **Franchised hauler:** Check the Department of Utilities (DOU) website for a list of these haulers. Only these companies and the City of Sacramento can collect and haul mixed C&D debris generated within the City for a fee.
3. **Source separation:** This means keeping wood, metal, cardboard, or other recyclables in separate containers, and sending the materials to an authorized recycler. A list of authorized recyclers can be found on the DOU web site. Source-separated materials may be hauled by anyone.
4. **Mixed C&D debris:** This means putting all recyclable debris into one container. Mixed materials must be sent to a certified mixed C&D sorting facility. Mixed materials may be either self-hauled or hauled by a franchised hauler. If your job site is crowded, this option saves the most space.
5. **Certified Mixed C&D Sorting Facility:** See the DOU web site for a list. These facilities have been certified by the Sacramento Regional Solid Waste Authority (SWA) to extract recyclable materials from mixed C&D debris.

F. Terms and Conditions

- Your approved Waste Management Plan and Waste Log must be kept on the job site for the duration of the project.
- City of Sacramento Solid Waste Services staff may enter the jobsite to inspect waste collection areas.
- **ALL Clean Wood Waste** (unpainted, untreated lumber, plywood and OSB), **Inert Materials** (concrete, asphalt paving, brick, block, and dirt), **Wooden Pallets**, **Scrap Metal**, and **Corrugated Cardboard** must be recycled.
- Only SWA-Certified Mixed C&D Sorting Facilities may be used to recycle these materials if mixed with other materials.
- Only the City of Sacramento, SWA-Franchised Haulers, or self-haulers (as defined above) may collect and transport mixed C&D material from the jobsite.
- C&D Debris may not be burned or dumped illegally.
- Your Waste Log must be completed and submitted, with supporting weight tickets, within 30 days of submitting your project completion report. All waste hauling and disposal or recycling activity must be entered on the Waste Log, including information from any subcontractors who self-hauled their own debris off-site.
- You must keep all receipts or weight-tickets from your project for a period of one year from the submittal of your waste log.
- Failure to comply with these terms and conditions may result in a fine and payment of a security deposit on future projects

Green Contracting Survey (Voluntary)

The City of Sacramento and the Sacramento Metropolitan Air Quality District (SMAQMD) are conducting a joint pilot project to help meet Federal Clean Air Standards for the Sacramento region.

Attached is a Green Contracting Fleet Inventory Form. Please complete the form, remove it from the bid package and return it to SMAQMD in the postage paid envelope provided with the bid package. Please do not return the Green Contracting Fleet Inventory Form to the City of Sacramento with the bid documents or otherwise.

A limited amount of funds and other financial incentives may be available to qualified contractors participating in this joint project to assist qualified contractors with upgrading and/or replacing equipment and/or trucks.

Completing and returning the Green Contracting Fleet Inventory Form is strictly voluntary

Voluntary Green Contracting Fleet Inventory List (On-Road Equipment)

In partnership with the City of Sacramento and the Sacramento Metropolitan Air Quality Management District

Company Name:	
Contact Name:	
Company Address:	
City, State, ZIP:	
Company Phone:	

City Bid Information	
Department	
Project #	
LBE	

Instructions:

- a) Please enter the vehicle / equipment information for each unit used in conjunction with your City of Sacramento Bid.
- b) All fields are required for both on-road heavy-duty vehicles and off-road construction equipment over 50 HP.
- c) Electronic version available at <http://www.airquality.org/ceqa/index.shtml>
For additional questions, please call (916) 874-4892
- d) 4892

Please Submit To:

Kristian Damkier, P.E.
 Sacramento Metropolitan AQMD
 777 12th St, 3rd Floor
 Sacramento, CA 95814-1908

#	VIN	License Plate	Vehicle Information			Engine Information				Annual Usage (miles)	Received Funding
			Make	Model	Year	Make	Model	Year	HP		
(ex)	1XP5AAC35RG339402	1T45678	Kenworth	T-300	2002	Cummins	ISB	2002	250	35,000	No

Voluntary Green Contracting Fleet Inventory List (On-Road Equipment)

In partnership with the City of Sacramento and the Sacramento Metropolitan Air Quality Management District

Company Name:	
Contact Name:	
Company Address:	
City, State, ZIP:	
Company Phone:	

	City Bid Information
Department	
Project #	
LBE	

Instructions:

- a) Please enter the vehicle / equipment information for each unit used in conjunction with your City of Sacramento Bid.
- b) All fields are required for both on-road heavy-duty vehicles and off-road construction equipment over 50 HP.
Electronic version is available at
- c) <http://www.airquality.org/ceqa/index.shtml>
For additional questions, please call (916) 874-
- d) 4892

Please Submit To:
Kristian Damkier, P.E. Sacramento Metropolitan AQMD 777 12th St, 3rd Floor Sacramento, CA 95814-1908

Equipment Serial Number	Equipment Information				Engine Information				Annual Usage (hours)
	Make	Model	Type	Year	Make	Model	Year	HP	
48W34456	Caterpillar	631G	Scraper	2003	Caterpillar	3408E	2003	485	1,600

**LOCAL BUSINESS ENTERPRISE (LBE)
PARTICIPATION REQUIREMENTS
FOR PUBLIC PROJECTS OF \$100,000 OR MORE**
(City Contracts no Federal Funds Used)

I. LBE PARTICIPATION REQUIREMENT

On April 3, 2012, the Sacramento City Council adopted a Local Business Enterprise (LBE) Preference Program to provide enhanced opportunities for the participation of local business enterprises (LBEs) in the City's contracting and procurement activities. On November 19, 2013, the City Council increased the LBE preference percentage and authorized City departments to require minimum LBE participation levels in specific contracts. Under City Code section 3.60.270, when the bid specifications for a City contract establish a minimum participation level for LBEs, no bidder on the contract shall be considered responsive unless its bid meets the minimum LBE participation level required by the bid specifications.

The City has established **a minimum 5% participation level for LBEs on this contract.** Pursuant to City Code Section 3.60.270, no bidder on this contract shall be considered responsive unless its bid meets or exceeds this minimum participation level.

Bidder and any other business entity listed on the LBE forms submitted shall comply with all applicable laws relating to licensing, permitting, and payment of taxes and fees in the City of Sacramento or County of Sacramento; and shall not be in arrears to the City of Sacramento or County of Sacramento, upon award of a contract.

II. LBE QUALIFICATION

- A. A LBE designated in the bid must be qualified as a LBE prior to the time set for submission of bids.
- B. Local Business Enterprise means a business enterprise, including but not limited to, a sole proprietorship, partnership, limited liability company, corporation, or other business entity that has a legitimate business presence in the City or unincorporated county of Sacramento. Proof of legitimate business presence in the City or unincorporated county of Sacramento shall include:
 - 1. Having a current City of Sacramento Business Operation Tax or County of Sacramento Business License for at least twelve (12) consecutive months prior to submission of bid; and
 - 2. Having either of the following types of offices or workspace operating legally within the City or unincorporated county of Sacramento for at least twelve (12) consecutive months prior to submission of bid:
 - a. The LBE's principle business office or workspace; or
 - b. The LBE's regional, branch or satellite office with at least one full time employee located in the City or unincorporated county of Sacramento.

- C. A LBE must provide a physical address for the basis of location. This excludes P.O. Box addresses.
- D. A LBE must provide a current copy of the City of Sacramento Business Operations Tax Certificate or County of Sacramento Business License.

III. DETERMINATION OF LBE PARTICIPATION LEVEL

- A. LBE Participation: The percentage of LBE participation is determined based on the dollar value of the work to be performed or supplies to be furnished by certified LBEs designated in the bidder's Subcontractor and LBE Participation Verification Form, relative to the total dollar amount of the bid.
- B. Participation Credit: To receive credit for participation:(1) a LBE subcontractor must be responsible for the execution of a distinct element of the work, must possess any license or certification required for the work, and must actually perform, manage, or supervise the work without subcontracting or otherwise shifting any portion of the work to another subcontractor; and (2) a LBE supplier must furnish materials, equipment, or supplies that the supplier sells as a recurring, although not necessarily primary, part of its business, and that are necessary for performance of the work.
- C. Suppliers: Credit for a LBE supplier of materials, equipment, or supplies is counted as one hundred (100) percent of the amount paid to the supplier for the material, equipment, or supplies. To receive this credit, LBE suppliers must be listed on the bidder's Subcontractor and LBE Participation Verification Form.
- D. Subcontractors (including truckers): To receive credit for a LBE subcontractor, the subcontractor must be listed on the bidder's Subcontractor and LBE Participation Verification Form.
 - Truckers: Credit for a LBE trucker is counted as one hundred (100) percent of the amount paid to the trucker for trucking services, not including any amount paid to the trucker for the cost of any materials, equipment, or supplies being transported by the trucker.

IV. LBE REQUIREMENTS FOR CONTRACTOR

- A. LBE Records: The Contractor shall maintain records of all subcontracts with verified LBE subcontractors and records of materials purchased from verified LBE suppliers for one (1) year after receiving final payment from the City. Such records shall show the name and business address of each LBE subcontractor or supplier and the total dollar amount actually paid each LBE subcontractor or supplier.

Not later than 30 days after completion of the work performed under the contract, a summary of these records shall be prepared, certified correct by the Contractor's authorized representative and furnished to the City. The Contractor shall provide such other information, records, reports, certifications or other documents as may

be required by City, to determine compliance with any provision of the LBE program or these specifications.

- B. Performance of LBE Subcontractors and Suppliers: The LBEs listed by the Contractor shall perform the work and supply the materials, equipment, and supplies for which they are listed unless the Contractor has received prior written authorization from the City to perform the work with other forces or to obtain the material, equipment, or supplies from other sources. Reasons for requesting such authorization would include:
1. The listed LBE fails to execute a written contract based upon the general terms, conditions, plans, and specifications for the project.
 2. The listed LBE becomes bankrupt or insolvent.
 3. The listed LBE subcontractor fails to meet the bond requirements of the Contractor.
 4. The work performed or the materials/equipment/supplies provided by the listed LBE are unsatisfactory or are not in accordance with the plans and specifications, or the listed LBE fails to perform its contractual obligations.
 5. It would be in the best interest of the City.
- C. Subcontractor Substitution: No substitution of a LBE subcontractor shall be made at any time without compliance with the Subletting and Subcontracting Fair Practices Act. If a LBE subcontractor is unable to perform successfully and is to be replaced, the Contractor shall make reasonable efforts to replace the original LBE subcontractor with another verified LBE subcontractor. The new LBE subcontractor must be verified at the time of substitution.
- D. Reporting and Utilization Requirements and Sanctions: Failure to provide specific information, records, reports, certifications, or any other documents required for compliance with these specifications, or failure to utilize one or more LBEs in substantial compliance with the LBE utilization indicated in the Contractor's bid (unless otherwise authorized by City as provided herein, or when such failure results from changes to the work approved by the City), shall be considered a breach of the contract, and a deduction may be made from the contract amount. The deduction shall be not more than ten (10) percent of the value of the work or materials/equipment/supplies that the subject LBE(s) were listed to perform/provide in the Contractor's bid, and shall be deducted from any payment due to the Contractor. This is in addition to any deduction that may be made under any other provision of the contract, the Sacramento City Code, or State law.
- E. Hearing and Review of Division Manager Decision: Prior to making a deduction pursuant to Section IV (D), above, the City shall provide written notice of the proposed deduction to the Contractor, and the Contractor may, not later than five (5) working days after receiving such notice, provide a written request to City for a hearing to contest the proposed deduction. Upon receipt of a timely written

request from the Contractor, the City shall schedule a hearing before the Division Manager (as defined in the City's Standard Specifications for Public Construction), and written notice of the date, time and location of the hearing shall be provided to the Contractor not less than five (5) working days prior to the date of the hearing. The hearing shall be conducted in the manner specified in Section 4-8 of the Standard Specifications, and the Division Manager shall prepare and forward to the Contractor a written decision as soon as practicable after the hearing. The Division Manager's decision shall be subject to review in accordance with the provisions of Section 4-9 of the Standard Specifications. Failure to request such review in compliance with the requirements set forth in Section 4-9 shall constitute acceptance of the Division Manager's decision by the Contractor.

The written notices and requests described above shall be provided by registered or certified mail (return receipt requested), by telecopy, by personal delivery, or by any other method that provides reliable evidence of the date of receipt. Written notice provided by telecopy shall be deemed received on the date that it is transmitted and transmission is confirmed by the transmitting machine. Written notice provided by personal delivery shall be deemed received on the date of delivery.

V. DEFINITIONS

- A. Local Business Enterprise (LBE): A business enterprise, including but not limited to, a sole proprietorship, partnership, limited liability company, corporation, or any other business entity that has a legitimate business presence in the City of Sacramento or unincorporated county of Sacramento.
- B. Contractor: The sole proprietorship, partnership, limited liability company, corporation, or any other business entity entering into a contract with the City of Sacramento.
- C. Subcontractor: The sole proprietorship, partnership, limited liability company, corporation, or other business entity entering into a contract with the prime contractor to perform a portion of the work.
- D. Supplier: The sole proprietorship, partnership, limited liability company, corporation, or other business entity to provide materials, equipment, or supplies necessary for performance of the work.
- E. Proposal: Any response to a City solicitation for Proposals or Qualifications.
- F. Bid: Any response to a City solicitation for bids.

FOLLOWING FORMS TO BE FILLED OUT AND SIGNED

ONLY

IF AWARDED CONTRACT

WORKER'S COMPENSATION INSURANCE CERTIFICATION

TO THE CITY OF SACRAMENTO:

The undersigned does hereby certify that he is aware of the provisions of Section 3700 et seq. of the Labor Code which require every employer to be insured against liability for worker's compensation claims or to undertake self-insurance in accordance with the provisions of said Code, and that he/she will comply with such provisions before commencing the performance of the work on this contract.

Zim Industries, Inc.

Bidder

BY: Curt B. Zimmerman

Title: President - Curt B. Zimmerman

Address: 4545 E. Lincoln Ave

Fresno CA, 93725

Date: March 30, 2016

PLEASE READ CAREFULLY BEFORE SIGNING

To be signed by authorized corporate officer or partner or individual submitting the bid. If bidder is: (example)

1. An individual using a firm name, sign: "John Doe, and individual doing business as Blank Company".
2. An individual doing business under his own name, sign: Your name only.
3. A co-partnership, sign: "John Doe and Richard Doe, co-partners doing business as Blank Company, by, John Doe, Co-Partner".
4. A corporation, sign: "Blank Company, by John Doe, Secretary". (Or other title)

AGREEMENT
(Construction Contract over \$25,000)

THIS AGREEMENT, dated for identification April 12, 2016 is made and entered into between the CITY OF SACRAMENTO, a municipal corporation ("City"), and **Zim Industries, Inc 4545 E. Lincoln Ave, Fresno CA, 93725**("Contractor").

The City and Contractor hereby mutually agree as follows:

1. CONTRACT DOCUMENTS

The Contract Documents, sometimes also referred to as the "Contract," consist of the following items, which are hereby incorporated by reference as if set forth in full in this Agreement:

- The Notice to Contractors
- The Proposal Form submitted by the Contractor
- The Instructions to Bidders
- The Local Business Enterprise (LBE) Requirements
- The Requirements for the Non-Discrimination in Employee Benefits by City Contractors Ordinance and the Declaration of Compliance
- The City's Reference Guide for Construction Contracts
- The Addenda, if any
- This Agreement
- The Standard Specifications
- The Special Provisions
- The Plans and Technical Specifications
- The drawings and other data and all developments thereof prepared by City pursuant to the Contract
- Any modifications of any of the foregoing made or approved by City, including but not limited to duly authorized change orders.

Unless specifically noted otherwise, references to the "Standard Specifications" shall mean and refer to the Standard Specifications for Public Construction of the City of Sacramento approved by the Sacramento City Council on June 4, 2007 (Resolution No. 2007-350), and any subsequent amendments thereto approved by the Sacramento City Council or the Sacramento City Manager. Work called for in any one Contract Document and not mentioned in another is to be performed and executed as if mentioned in all Contract Documents. The table of contents, titles and headings contained in the Contract Documents are provided solely to facilitate reference to various provisions of the Contract Documents and in no way affect or limit the interpretation of the provisions to which they refer.

2. DEFINITIONS

Unless otherwise specifically provided herein, all words and phrases defined in the Standard Specifications shall have the same meaning and intent in this Agreement.

3. AGREEMENT CONTROLS

In the event of a conflict between any of the terms and conditions set forth in this Agreement and the terms and conditions set forth in other Contract Documents, the terms and conditions set forth in this Agreement shall prevail, except that the provisions of any duly authorized change order shall prevail over any conflicting provisions of this Agreement.

4. SCOPE OF CONTRACT

Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, material and transportation necessary to perform and complete in a good and workmanlike manner to the satisfaction of City, all the Work called for in the Contract Documents entitled:

FAIRBAIRN WATER TREATMENT PLANT GROUNDWATER WELL (PN: Z14120200)

Including the Work called for in the following alternative bid items described in the Proposal Form:

Contractor agrees to perform such Work in the manner designated in and in strict conformity with the Contract Documents.

5. CONTRACT AMOUNT AND PAYMENTS

City agrees to pay and Contractor agrees to accept, as complete payment for the above Work, in accordance with the schedule and procedures set forth in the Contract Documents and subject to deductions, withholdings and additions as specified in the Contract Documents, a total sum that shall not exceed the total bid amount set forth in Contractor's Proposal Form. In addition, subject to deductions, withholdings and additions as specified in the Contract Documents, payment for individual items of the Work shall be computed as follows:

- A. For items of the Work for which a lump sum price is specified in Contractor's Proposal Form, Contractor shall be paid the lump sum price(s) specified in Contractor's Proposal Form; and
- B. For items of the Work for which a unit price is specified in Contractor's Proposal Form, Contractor shall be paid the sum computed at such unit price, or computed at a different price if such different price is determined by City in accordance with the Standard Specifications, based on the actual amount of each such item performed and/or furnished and incorporated in the Work; provided that in no event shall the total sum for a unit price item exceed the total bid amount set forth for such item in the Contractor's Proposal Form, unless authorized by Change Order.

6. PROGRESS PAYMENTS

Subject to the terms and conditions of the Contract, City shall cause payments to be made upon demand of Contractor as follows:

- A. On or about the first of the month, the Engineer shall present to the Contractor a statement showing the amount of labor and materials incorporated in the Work through the twentieth (20) calendar day of the preceding month. After both Contractor and Engineer approve the statement in writing, and the City's labor compliance officer provides written approval, the City shall issue a certificate for **ninety (90) percent** of the amount it shall find to be due, subject to any deductions or withholdings authorized or required under the Contract or any applicable Laws or Regulations.
- B. No inaccuracy or error in said monthly estimates shall operate to release Contractor from damages arising from such Work or from enforcement of each and every provision of the Contract Documents, and City shall have the right subsequently to correct any error made in any estimate for payment.
- C. Contractor shall not be paid for any defective or improper Work.
- D. The remaining **ten (10) percent** of the value of the Work performed under the Contract, if unencumbered and subject to any deductions or withholdings authorized or required under the Contract or any applicable Laws or Regulations, shall be released not later than sixty (60) days after completion and final acceptance of the Work by City. Acceptance by Contractor of the final payment shall constitute a waiver of all claims against the City arising under the Contract Documents, except for disputed claims in stated amounts that the Contractor specifically reserves in writing, but only to the extent that the Contractor has complied with all procedures

and requirements applicable to the presentation and processing of such claim(s) under the Contract Documents. Contractor shall be entitled to substitute securities for retention or to direct that payments of retention be made into escrow, as provided in Public Contract Code Section 22300, upon execution of the City's Escrow Agreement for Security Deposits in Lieu of Retention.

- E. The parties agree that, for purposes of the timely progress payment requirements specified in Public Contract Code Section 20104.50, the date that the City receives a statement jointly approved by the Contractor and the Engineer as provided above shall be deemed to constitute the date that City receives an undisputed and properly submitted payment request from the Contractor. Progress payments not made within 30 days after this date may be subject to payment of interest as provided in Public Contract Code Section 20104.50.
- F. This Contract is subject to compliance monitoring and enforcement by the California Department of Industrial Relations, as specified in California Labor Code section 1771.4.

7. RETENTION OF SUMS CHARGED AGAINST CONTRACTOR

When, under the provisions of this Contract or any applicable Laws or Regulations, City is authorized or required to withhold, deduct or charge any sum of money against Contractor, City may deduct and retain the amount of such charge from the amount of the next succeeding progress estimate(s), or from any other moneys due or that may become due Contractor from City. If, on completion or termination of the Contract, sums due Contractor are insufficient to pay City's charges, City shall have the right to recover the balance from Contractor or its Sureties.

8. COMMENCEMENT AND PROSECUTION OF WORK

Contractor shall commence the Work not later than fifteen (15) working days after the date of the written Notice to Proceed from City to Contractor and shall diligently prosecute the Work to final completion. The phase "commence the Work" means to engage in a continuous program on-site including, but not limited to, site clearance, grading, dredging, land filling and the fabrications, erection, or installation of the Work. The Notice to Proceed shall be issued within fifteen (15) calendar days following execution of the Agreement by the City and the filing by Contractor of the required Bonds and proof of insurance, provided that the Engineer may delay issuance of the Notice to Proceed if the Engineer determines in the Engineer's sole discretion that conditions on the site of the Work are unsuitable for commencement of the Work. After the Notice to Proceed is issued, the continuous prosecution of Work by Contractor shall be subject only to Excusable Delays as defined in this Agreement.

9. TIME OF COMPLETION

The entire Work shall be brought to completion in the manner provided for in the Contract Documents on or before **ninety (90) CALENDAR** days from the date of the Notice to Proceed (hereinafter called the "Completion Date") unless extensions of time are granted in accordance with the Contract Documents.

Failure to complete the entire Work by the Completion Date and in the manner provided for in the Contract Documents shall subject Contractor to liquidated damages as provided in this Agreement. Time is and shall be of the essence in the performance of the Contract and the Work.

10. PAYMENTS DO NOT IMPLY ACCEPTANCE OF WORK

The payment of any progress payment, or the acceptance thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof and shall in no way reduce the liability of Contractor to replace unsatisfactory work or material, whether or not the unsatisfactory character of such work or material was apparent or detected at the time such payment was made.

11. ACCEPTANCE NOT RELEASE

Contractor shall correct immediately any defective or imperfect work or materials that may be discovered before final acceptance of the entire Work, whether or not such defect or imperfection was previously noticed or identified by the City. The inspection of the Work, or any part thereof, shall not relieve Contractor of any of its obligations to perform satisfactory work as herein specified.

Failure or neglect on the part of City or any of its officers, employees or authorized agents to discover, identify, condemn or reject defective or imperfect work or materials shall not be construed to imply an acceptance of such work or materials, if such defect or imperfection becomes evident at any time prior to final acceptance of the entire Work, nor shall such failure or neglect be construed as barring City from enforcing Contractor's warranty(ies) or otherwise recovering damages or such a sum of money as may be required to repair or rebuild the defective or imperfect work or materials whenever City may discover the same, subject only to any statutes of limitation that may apply to any such claim.

12. CITY'S RIGHT TO TAKE POSSESSION OF THE WORK IN WHOLE OR IN PART

The City shall have the right at any time to enter upon the Work and perform work not covered by this Contract, or to occupy and use a portion of the Work, prior to the date of the final acceptance of the Work as a whole, without in any way relieving Contractor of any obligations under this Contract.

13. NO WAIVER OF REMEDIES

Neither the inspection by City, its officers, employees or agents, nor any certificate or other approval for the payment of money, nor any payment for, nor acceptance of the whole or any part of the Work by City, nor any extensions of time, nor any position taken by City, its officers, employees or its agents shall operate as a waiver of any provision of the Contract Documents nor of any power herein reserved to City or any right to damages herein provided, nor shall any waiver of any breach of this Agreement be held to be a waiver of any other or subsequent breach. All remedies provided in the Contract Documents shall be taken and construed as cumulative; in addition to each and every other remedy herein provided, the City shall have any and all equitable and legal remedies that it would in any case have.

14. WARRANTY

Except as otherwise expressly provided in the Contract Documents, and excepting only items of routine maintenance, ordinary wear and tear and unusual abuse or neglect by City, Contractor warrants and guarantees all Work executed and all supplies, materials and devices of whatsoever nature incorporated in or attached to the Work, or otherwise provided as a part of the Work pursuant to the Contract, to be absolutely free of all defects of workmanship and materials for a period of one year after final acceptance of the entire Work by the City. Contractor shall repair or replace all work or material, together with any other work or material that may be displaced or damaged in so doing, that may prove defective in workmanship or material within this one year warranty period without expense or charge of any nature whatsoever to City.

In the event that Contractor shall fail to comply with the conditions of the foregoing warranty within ten (10) days after being notified of the defect in writing, City shall have the right, but shall not be obligated, to repair, or obtain the repair of, the defect and Contractor shall pay to City on demand all costs and expense of such repair. Notwithstanding anything herein to the contrary, in the event that any defect in workmanship or material covered by the foregoing warranty results in a condition that constitutes an immediate hazard to public health or safety, or any property interest, or any person, City shall have the right to immediately repair, or cause to be repaired, such defect, and Contractor shall pay to City on demand all costs and expense of such repair. The foregoing statement relating to hazards to health, safety or property shall be deemed to include both temporary and permanent repairs that may be required as determined in the sole discretion and judgment of City.

In addition to the above, the Contractor shall make a written assignment of all manufacturer's and other product warranties to the City, prior to completion and final acceptance of the Work by City.

The Contractor's Performance Bond shall secure the performance of the Contractor's obligations under this Section 14, and the Contractor and its Surety shall be jointly and severally liable for these obligations.

15. LIQUIDATED DAMAGES IF WORK NOT COMPLETED ON TIME

- A. The actual fact of the occurrence of damages and the actual amount of the damages that City would suffer if the entire Work, and/or any specified portion thereof, were not completed within the time(s) specified herein are dependent upon many circumstances and conditions that could prevail in various combinations, and for this reason, it is impracticable and extremely difficult to fix the actual damages. Damages that City would suffer in the event of such delay include: loss of the use of the project; expenses of prolonged assignment to the project of an architectural and/or engineering staff; prolonged costs of administration, inspection, and supervision; increased operational expenses and/or impaired operation of other facilities dependent upon completion of the project; and the loss and inconvenience suffered by the public within the City of Sacramento by reason of the delay in the completion of the project or portion thereof. Accordingly, the parties agree, and by execution of this Agreement, Contractor acknowledges that it understands and agrees, that the amount(s) set forth herein as liquidated damages reflect the parties' best efforts at the time of entering into the Contract to estimate the damages that may be incurred by City and the public due to the Contractor's delay in completion of the Work and/or any specified portion thereof, and shall be presumed to be the amount of damages sustained by the failure of Contractor to complete the entire Work and/or any specified portion thereof within the time(s) specified herein.
- B. Contractor shall pay liquidated damages to City for failure to complete the entire Work by the Completion Date (as extended in accordance with the Contract Documents, if applicable) in the amount of **one thousand dollars (\$1,000.00) for each calendar day** after the Completion Date (as extended in accordance with the Contract Documents, if applicable), continuing to the time at which the entire Work is completed. Such amount is the actual cash value agreed upon by the City and Contractor as the loss to City and the public resulting from Contractor's default.

The parties agree, and by execution of this Agreement, Contractor acknowledges that it understands and agrees, that the foregoing provisions provide for the imposition of liquidated damages from the Completion Date (as extended in accordance with the Contract Documents, if applicable) until the date of completion of the entire Work as determined by the Engineer in accordance with Section 8-4 of the Standard Specifications, whether or not the Work or any portion thereof is claimed or determined to be substantially complete prior to such date of completion.

- C. In the event Contractor shall become liable for liquidated damages, City, in addition to all other remedies provided by law, shall have the right to withhold any and all payments that otherwise would be or become due Contractor until the liability of Contractor under this section is finally determined. City shall have the right to use and apply such payments, in whole or in part, to reimburse City for all liquidated damages due or to become due to City. Any remaining balance of such payments shall be paid to Contractor only after discharge in full of all liability incurred by Contractor under this section or otherwise under any provision of the Contract Documents or any applicable Law or Regulation. If the sum so retained by City is not sufficient to discharge all such liabilities of Contractor, Contractor shall continue to remain liable to City until all such liabilities are satisfied in full. No failure by City to withhold any payment as specified above shall in any manner be construed to constitute a release of any such liabilities nor a waiver of the City's right to withhold payment for such liabilities.

16. INDEMNITY AND HOLD HARMLESS

- A. Contractor shall defend, hold harmless and indemnify the City, its officers, employees, and agents, and each and every one of them, from and against any and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, whether arising on or off the site of the Work, including, but not limited to, any fees and/or costs reasonably incurred by City's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as

“Liabilities”), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform the Work by the Contractor, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not (i) such Liabilities are caused in part by a party indemnified hereunder, or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for damages for death or bodily injury to persons, injury to property, or other loss, damage or expense to the extent arising from (i) the sole negligence or willful misconduct of, or defects in design furnished by, City, its agents, servants, or independent contractors who are directly responsible to City, or (ii) the active negligence of City.

- B. The existence or acceptance by City of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of City’s rights under this Section 16, nor shall the limits of such insurance limit the liability of Contractor hereunder. The provisions of this Section 16 shall survive any expiration or termination of the Contract.

17. CONTRACTOR SHALL ASSUME RISKS

Until the completion and final acceptance by City of all Work under this Contract, the Work shall be under Contractor's responsible care and charge, and Contractor, at no cost to City, shall rebuild, repair, restore and make good all injuries, damages, re-erections, and repairs occasioned or rendered necessary by accidental causes of any nature, to all or any portions of the Work.

18. GENERAL LIABILITY OF CONTRACTOR

Except as otherwise herein expressly stipulated, Contractor shall perform all the Work and furnish all the labor, materials, tools, equipment, apparatus, facilities, transportation, power and light, and appliances, necessary or proper for performing and completing the Work herein required in the manner and within the time herein specified. The mention of any specific duty or liability of Contractor shall not be construed as a limitation or restriction of any general liability or duty of Contractor, and any reference to any specific duty or liability shall be construed to be solely for the purpose of explanation.

19. INSURANCE

During the entire term of the Contract, Contractor shall maintain the insurance coverage described in this Section 19.

Full compensation for all premiums that Contractor is required to pay for the insurance coverage described herein shall be included in the compensation specified for the Work performed by Contractor under this Contract. No additional compensation will be provided for Contractor’s insurance premiums. Any available insurance proceeds in excess of the specified minimum limits and coverages shall be available to the City.

It is understood and agreed by the Contractor that its liability to the City shall not in any way be limited to or affected by the amount of insurance coverage required or carried by the Contractor in connection with this Contract.

A. Minimum Scope & Limits of Insurance Coverage

- (1) Commercial General Liability Insurance providing coverage at least as broad as ISO CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage, and personal injury, arising out of activities performed by or on behalf of Contractor and its subcontractors, products and completed operations

of Contractor and its subcontractors, and premises owned, leased, or used by Contractor and its subcontractors, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide contractual liability and products and completed operations coverage for the term of the policy.

- (2) Automobile Liability Insurance providing coverage at least as broad as ISO Form CA 00 01 for bodily injury, including death, of one or more persons, property damage, and personal injury, with limits of not less than one million dollars (\$1,000,000) per accident. The policy shall provide coverage for owned, non-owned, and/or hired autos as appropriate to the operations of the Contractor.

No automobile liability insurance shall be required if Contractor completes the following certification:

“I certify that a motor vehicle will not be used in the performance of any work or services under this agreement.” _____ (Contractor initials)

- (3) Workers’ Compensation Insurance with statutory limits, and Employers’ Liability Insurance with limits of not less than one million dollars (\$1,000,000). The Workers’ Compensation policy shall include a waiver of subrogation in favor of the City.

No Workers’ Compensation insurance shall be required if Contractor completes the following certification:

“I certify that my business has no employees, and that I do not employ anyone. I am exempt from the legal requirements to provide Workers’ Compensation insurance.” _____ (Contractor initials)

B. Additional Insured Coverage

- (1) Commercial General Liability Insurance: The City, its officials, employees, and volunteers and the Regional Water Authority (RWA) shall be covered by policy terms or endorsement as additional insureds as respects general liability arising out of: activities performed by or on behalf of Contractor and its subcontractors; products and completed operations of Contractor and its subcontractors; and premises owned, leased, or used by Contractor and its subcontractors.
- (2) Automobile Liability Insurance: The City, its officials, employees, and volunteers shall be covered by policy terms or endorsement as additional insureds as respects auto liability.

C. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

- (1) Contractor’s insurance coverage, including excess insurance, shall be primary insurance as respects City, its officials, employees, and volunteers. Any insurance or self-insurance maintained by City, its officials, employees, or volunteers shall be in excess of Contractor’s insurance and shall not contribute with it.
- (2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officials, employees, or volunteers.
- (3) Coverage shall state that Contractor’s insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the

insurer's liability.

- (4) City will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

D. Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:VI. Self-insured retentions, policy terms or other variations that do not comply with the requirements of this Section 3 must be declared to and approved by the City in writing prior to execution of this Contract.

E. Verification of Coverage

- (1) Contractor shall furnish City and RWA with certificates and required endorsements evidencing the insurance required. The certificates and endorsements shall be forwarded to the City representative named in Exhibit A. Copies of policies shall be delivered to the City on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.
- (2) For all insurance policy renewals during the term of this Contract, Contractor shall send insurance certificates reflecting the policy renewals directly to:

City of Sacramento
c/o Ebix RCS
Reference #: (This number will be provided by EBIX after Contract approval.)
151 North Lyon Street
Hemet, CA 92543

Insurance certificates also may be faxed to (770) 325-3340, or e-mailed to:
CertsOnly-Portland@ebix.com

- (3) The City may withdraw its offer of contract or cancel this Contract if the certificates of insurance and endorsements required have not been provided prior to execution of this Contract. The City may withhold payments to Contractor or cancel the Contract if the insurance is canceled or Contractor otherwise ceases to be insured as required herein.

F. Subcontractors

Contractor shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

20. FAILURE TO MAINTAIN BONDS OR INSURANCE

If, at any time during the performance of this Contract, Contractor fails to maintain any item of the bonds and/or insurance required under the Contract in full force and effect, Contractor shall immediately suspend all work under the Contract and notify City in writing of such failure. After such notice is provided, or if City discovers such failure and notifies Contractor, the City thereafter may withhold all Contract payments due or that become due until notice is received by City that such bonds and/or insurance have been restored in full force and effect and that the premiums therefor have been paid for a period satisfactory to the Division of Risk Management. Contractor shall not resume work until notified by City to do so, and the City shall have no responsibility or liability for any costs incurred by Contractor as a result of such suspension of Work.

In addition to the foregoing, any failure to maintain any item of the required bonds and/or insurance at any time during the performance of this Contract will be sufficient cause for termination of the Contract by City.

The Contractor shall be solely responsible for, and shall defend, indemnify and hold harmless the City, its officers, employees and agents against and from, any and all damages, claims, losses, actions, costs or other expenses of any kind incurred by any party as a direct or indirect result of any suspension of Work or termination of the Contract under the provisions of this Section.

21. EXCUSABLE DELAYS

For the purpose of these Contract Documents, the term "Excusable Delay" shall mean, and is limited to, delay caused directly by: acts of God; acts of a public enemy; fires; inclement weather as determined by the Engineer; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; sitdowns; acts of a governmental agency; priorities or privileges established for the manufacture, assemble, or allotment of materials necessary in the Work by order, decree or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; changes in the Work ordered by City insofar as they necessarily require additional time in which to complete the Work; the prevention of Contractor from commencing or prosecuting the Work because of the acts of others, excepting Contractor's subcontractors or suppliers; or the prevention of Contractor from commencing or prosecuting the Work because of a Citywide failure of public utility service.

The term "Excusable Delay" shall specifically not include: (i) any delay that could have been avoided by the exercise of care, prudence, foresight and diligence on the part of Contractor; (ii) any delay in the prosecution of any part of the Work that does not constitute a Controlling Operation, whether or not such delay is unavoidable; (iii) any reasonable delay resulting from time required by City for review of any Contractor submittals and for the making of surveys, measurements and inspection; and, (iv) any delay arising from an interruption in the prosecution of the Work on account of reasonable interference by other Contractors employed by City that does not necessarily prevent the completion of the entire Work within the time specified. Excusable Delays, if any, shall operate only to extend the Completion Date (not in excess of the period of such delay as determined by City) and shall not under any circumstances increase the amount City is required to pay Contractor except as otherwise provided in these Contract Documents.

22. CONTRACTOR TO SERVE NOTICE OF DELAYS

Whenever Contractor foresees any delay in the prosecution of the Work, and in any event as soon as possible (not to exceed a period of ten (10) calendar days) after the initial occurrence of any delay that Contractor regards as or may later claim to be an Excusable Delay, the Contractor shall notify the Engineer in writing of such delay and its cause, in order that the Engineer: (i) may take immediate steps to prevent if possible the occurrence or continuance of the delay; or (ii) if this cannot be done, may determine whether the delay is to be considered excusable, how long it continues, and to what extent the prosecution and completion of the Work are delayed thereby. Said written notice shall constitute an application for an extension of time only if the notice requests such an extension and sets forth the Contractor's estimate of the additional time required together with a full description of the cause of the delay relied upon.

After the completion of any part or whole of the Work, the Engineer, in estimating the amount due Contractor, will assume that any and all delays that may have occurred in its prosecution and completion were not Excusable Delays, except for such delays for which the Contractor has provided timely written notice as required herein, and that the Engineer has found to be excusable. Contractor shall not be entitled to claim Excusable Delay for any delay for which the Contractor failed to provide such timely written notice.

23. EXTENSION OF TIME

If the Contractor complies with Section 22, above, and the Engineer finds a delay claimed by the Contractor to be an Excusable Delay, the Contractor shall be allowed an extension of time to complete the Work that is proportional to the period of Excusable Delay determined by the Engineer, subject to the approval by City

of a change order granting such time extension. During a duly authorized extension for an Excusable Delay, City shall not charge liquidated damages against the Contractor for such delay.

If the City extends the time to complete the Work as provided herein, such extension shall in no way release any warranty or guarantee given by Contractor pursuant to the provisions of the Contract Documents, nor shall such extension of time relieve or release the sureties of the Bonds provided pursuant to the Contract Documents. By executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such extension of time. The granting of any extension of time as provided herein shall in no way operate as a waiver on the part of City of its rights under this Contract, excepting only extension of the Completion Date for such period of Excusable Delay as may be determined by the Engineer and approved by a duly authorized change order.

24. NO PAYMENT FOR DELAYS

No damages or compensation of any kind shall be paid to Contractor or any subcontractor because of delays in the progress of the Work whether or not such delays qualify for extension of time under this Agreement; except that this provision shall not preclude the recovery of damages for a delay caused by the City that is unreasonable under the circumstances and that is not within the contemplation of the parties, provided that the Contractor timely submits all such written notice(s) and fully complies with such other procedures as may be specified in the Contract Documents or any Laws or Regulations for Contractor to claim damages for such delay.

25. CHANGES IN THE WORK

Changes in the Work authorized or directed in accordance with the Contract Documents and extensions of time of completion made necessary by reason thereof shall not in any way release any warranty or guarantee given by Contractor pursuant to the provisions of the Contract Documents, nor shall such changes in the Work relieve or release the Sureties on Bonds provided pursuant to the Contract Documents. By executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such change in Work and to any extension of time made by reason thereof.

26. TERMINATION AFTER COMPLETION DATE

In addition to any other rights City may have, if any services or work required under the Contract (including but not limited to punch list items) are not completed as of the Completion Date (as adjusted by any extensions of time for Excusable Delays granted pursuant to the Contract Documents), City may terminate the Contract at any time after the Completion Date (as adjusted by any extensions of time for Excusable Delays granted pursuant to the Contract Documents), by providing a written notice to Contractor specifying the date of termination. Such notice also may specify conditions or requirements that Contractor must meet to avoid termination of the Contract on such date. If Contractor fails to fulfill all such conditions and requirements by such termination date, or, if no such conditions or requirements are specified, Contractor shall cease rendering services and performing work on such termination date, and shall not be entitled to receive any compensation for services rendered or work performed after such termination date. In the event of such termination, Contractor shall remain liable to City for liquidated damages incurred for any period of time prior to the termination date.

In addition to any other charges, withholdings or deductions authorized under the Contract or any Laws or Regulations, if City terminates the Contract pursuant to this section, City may withhold and deduct from any payment and/or retention funds otherwise due Contractor any sum necessary to pay the City's cost of completing or correcting, or contracting for the completion or correction of, any services or work under the Contract that are not completed to the satisfaction of the City or that otherwise are deficient or require correction as of such termination date, including but not limited to incomplete punch list items. Such costs shall include all of the City's direct and indirect costs incurred to complete or correct such services or work, including the City's administrative and overhead costs. If the amount of payment(s) and/or retention funds otherwise due the Contractor are insufficient to pay such costs, City shall have the right to recover the balance of such costs from the Contractor and/or its Surety(ies).

27. TERMINATION FOR CONVENIENCE

Upon written notice to the Contractor, the City may at any time, without cause and without prejudice to any other right or remedy of the City, elect to terminate the Contract for the convenience of City. In such case, the Contractor shall be paid (without duplication of any items, and after deduction and/or withholding of any amounts authorized to be deducted or withheld by the Contract Documents or any Laws or Regulations):

- A. For Work executed in accordance with the Contract Documents prior to the effective date of termination and determined to be acceptable by the Engineer, including fair and reasonable sums for overhead and profit on such Work;
- B. For reasonable claims, costs, losses, and damages incurred in settlement of terminated contracts with subcontractors, suppliers, and others; and
- C. For reasonable expenses directly attributable to termination.

Contractor shall not be paid for any loss of anticipated profits or revenue for any Work not performed prior to termination, nor for any economic loss arising out of or resulting from such termination, except for the payments listed in this section. Contractor's warranty under Section 14 of this Agreement shall apply, and Contractor shall remain responsible for all obligations related to such warranty, with respect to all portions of the Work performed prior to the effective date of the termination for convenience pursuant to this section. The City shall be entitled to have any or all remaining Work performed by other contractors or by any other means at any time after the effective date of a termination for convenience pursuant to this section.

28. TERMINATION FOR BREACH OF CONTRACT

If Contractor abandons the Work under this Contract, or if the Contract or any portion of the Contract is sublet or assigned without the consent of the City, or if the Engineer determines in the Engineer's sole discretion that the conditions of the Contract in respect to the rate of progress of the Work are not being fulfilled or any part thereof is unnecessarily delayed, or if Contractor violates or breaches, or fails to execute in good faith, any of the terms or conditions of the Contract, or if Contractor refuses or fails to supply enough properly skilled labor or materials or refuses or fails to make prompt payment to subcontractors for material or labor, or if Contractor disregards any Laws or Regulations or proper instruction or orders of the Engineer, then, notwithstanding any provision to the contrary herein, the City may give Contractor and its Sureties written notification to immediately correct the situation or the Contract shall be terminated.

In the event that such notice is given, and, in the event such situation is not corrected, or arrangements for correction satisfactory to the City are not made, within ten (10) calendar days from the date of such notice or within such other period of time as may be specified by the City in the notice, the Contract shall upon the expiration of said period cease and terminate. In the event of any such termination, City may take over the Work and prosecute the Work to completion, or otherwise, and the Contractor and its Sureties shall be liable to City for any cost occasioned City thereby, as hereinafter set forth.

In the event City completes the Work, or causes the Work to be completed, no payment of any kind shall be made to Contractor until the Work is complete. The cost of completing the Work, including but not limited to, extra costs of project administration and management incurred by City, both direct or indirect, shall be deducted from any sum then due, or that becomes due, to Contractor from City. If sums due to Contractor from City are less than the cost of completing the Work, Contractor and its Sureties shall pay City a sum equal to this difference on demand. In the event City completes the Work, and there is a sum remaining due to Contractor after City deducts the costs of completing the Work, then City shall pay such sum to Contractor. The Contractor and Contractor's Sureties shall be jointly and severally liable for all obligations imposed on Contractor hereunder.

No act by City before the Work is finally accepted, including, but not limited to, exercise of other rights under the Contract, actions at law or in equity, extensions of time, payments, assessments of liquidated

damages, occupation or acceptance of any part of the Work, waiver of any prior breach of the Contract or failure to take action pursuant to this section upon the happening of any prior default or breach of Contractor, shall be construed to be a waiver or estoppel of the City's right to act pursuant to this Section upon any subsequent event, occurrence or failure by Contractor to fulfill the terms and conditions of the Contract. The rights of City to terminate the Contract pursuant to this Section and pursuant to Sections 26 and 27 are cumulative and are in addition to all other rights of City pursuant to the Contract and at law or in equity.

29. CONTRACTOR BANKRUPT

If Contractor should commence any bankruptcy proceeding, or if Contractor is adjudged a bankrupt, or if Contractor makes any assignment for the benefit of creditors, or if a receiver is appointed on account of Contractor's insolvency, then the City may, without prejudice to any other right or remedy, terminate the Contract and complete the work by giving notice as provided in Section 28 above.

30. SURETIES' OBLIGATIONS UPON TERMINATION

If the City terminates the Contract pursuant to Section 28 or Section 29 above:

- A. The Surety under Contractor's performance bond shall be fully responsible for all of the Contractor's remaining obligations of performance under the Contract as if the Surety were a party to the Contract, including without limitation Contractor's obligations, as provided in the Contract Documents, to complete and provide a one-year warranty of the entire Work, pay liquidated damages and indemnify, defend and hold harmless City, up to the full amount of the performance bond.
- B. The Surety under Contractor's payment bond shall be fully responsible for the performance of all of the Contractor's remaining payment obligations for work, services, equipment or materials performed or provided in connection with the Work or any portion thereof, up to the full amount of the payment bond.

31. ACCOUNTING RECORDS OF CONTRACTOR

During performance of the Contract and for a period of three (3) years after completing the entire Work, Contractor shall maintain all accounting and financial records related to the Contract and performance of the Work in accordance with generally accepted accounting practices, and shall keep and make such records available for inspection and audit by representatives of the City upon reasonable written notice.

32. USE TAX REQUIREMENTS

During the performance of this Agreement, CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

- A. Use Tax Direct Payment Permit: For all leases and purchases of materials, equipment, supplies, or other tangible personal property used to perform the Agreement and shipped from outside California, the Contractor and any subcontractors leasing or purchasing such materials, equipment, supplies or other tangible personal property shall obtain a Use Tax Direct Payment Permit from the California State Board of Equalization ("SBE") in accordance with the applicable SBE criteria and requirements.
- B. Sellers Permit: For any construction contract and any construction subcontract in the amount of \$5,000,000 or more, Contractor and the subcontractor(s) shall obtain sellers permits from the SBE and shall register the jobsite as the place of business for the purpose of allocating local sales and use tax to the City. Contractor and its subcontractors shall remit the self-accrued use tax to the SBE, and shall provide a copy of each remittance to the City.

- C. The above provisions shall apply in all instances unless prohibited by the funding source for the Agreement.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement on the date set for opposite their names.

CONTRACTOR Zim Industries, Inc.

Under penalty of perjury, I certify that the taxpayer identification number and all other information provided here are correct.

DATE March 30, 2016

BY [Signature]
Curt A. Zimmerman
Print Name
President
Title

BY [Signature]
Robert J. Zimmerman
Print Name
V.P. & Secretary
Title

94-2597729
Federal ID#

280 91569
State ID#

1024867
State ID#

City of Sacramento Business Operation Tax Certificate No. (City will not award contract until Certificate Number is obtained)

Type of Business Entity (check one):
 Individual/Sole Proprietor
 Partnership
 Corporation
 Limited Liability Company
 Other (please specify: _____)

CITY OF SACRAMENTO
a municipal corporation

DATE _____

BY _____
For: John F Shirey, City Manager

Original Approved As To Form:

Attest:

City Attorney

City Clerk

KNOW ALL MEN BY THESE PRESENTS,

That we, Zim Industries, Inc.

as Principal, and The Guarantee Company of North America USA

a corporation duly organized under the laws of the State of MI and duly licensed to become sole surety on bonds required or authorized by the State of California, as Surety, are held and firmly bound unto the City of Sacramento, hereinafter called the City, in the penal sum of ten percent (10%) of the (BASE OR LUMP SUM) Proposal of the Principal above named, or other amount as set forth in the Invitation to Bidders, submitted by said Principal to the City for the Work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH

That whereas the Principal has submitted the above mentioned proposal to the City, for which Proposals are to be opened by the Office of the City Clerk, Historic City Hall, Hearing Room, 2nd Floor, 915 I Street, Sacramento, California, on **March 2, 2016**, for the Work specifically described as follows:

FAIRBAIRN WATER TREATMENT PLANT GROUNDWATER WELL
(PN: Z14120200) (B16141321022)

NOW, THEREFORE, if the aforesaid Principal is award the Agreement and within the time and manner required under the Contract Documents, enters into a written Agreement, in the prescribed form, in accordance with the Proposal, and files two (2) bonds with the City, one to guarantee faithful performance and the other to guarantee payment for labor and materials, and files the required insurance policies with the City, all as required by the Contract Documents or by law, then the obligation shall be null and void; otherwise it shall be and remain in full force and effect.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court, which sums shall be additional to the principal amount of this bond.

IN WITNESS THEREOF, We have hereunto set our hands and seal this 26th day of February, 2016.

Zim Industries, Inc.
PRINCIPAL _____ Seal
By: Curt B. Zimmerman
President
Title Curt B. Zimmerman

The Guarantee Company of North America USA
SURETY _____ Seal
By: Lyn Genito
Lyn Genito - Attorney in Fact
Title
Alliant Insurance Services, Inc.
Agent Name and Address
9 E. River Park Park East, 3rd Floor, Fresno, CA. 93720
559-374-3560
Agent Phone #
925-566-6042
Surety Phone #
0C36861
California License #

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

County of Fresno)

On February 26, 2016 before me, Judy M. Muston - Notary Public,
Date Here Insert Name and Title of the Officer

personally appeared Curt B. Zimmerman
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Judy M. Muston
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: City of Sacramento Bid Document Date: 2/26/2016
Number of Pages: 1 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

Civil Code § 1189

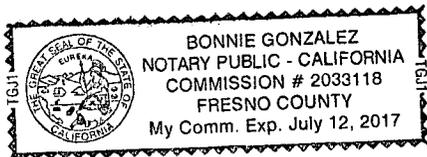
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
) ss
County of Fresno)

On 02/26/2016, before me, Bonnie Gonzalez, Notary Public, personally appeared Lyn Genito, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(Seal)

Signature: Bonnie Gonzalez
Bonnie Gonzalez, Notary Public



POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS: That THE GUARANTEE COMPANY OF NORTH AMERICA USA, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Steven P. Edwards, Cody Lyman, Lyn Genito, Bonnie Gonzalez
Alliant Insurance Services, Inc.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon THE GUARANTEE COMPANY OF NORTH AMERICA USA as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of THE GUARANTEE COMPANY OF NORTH AMERICA USA at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof; and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.
4. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner - Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 6th day of December 2011, of which the following is a true excerpt:

RESOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.



IN WITNESS WHEREOF, THE GUARANTEE COMPANY OF NORTH AMERICA USA has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 23rd day of February, 2012.

THE GUARANTEE COMPANY OF NORTH AMERICA USA

STATE OF MICHIGAN
County of Oakland

Stephen C. Ruschak, Sr. Vice President, COO

Randall Musselman, Secretary

On this 23rd day of February, 2012 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland
My Commission Expires February 27, 2018
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of THE GUARANTEE COMPANY OF NORTH AMERICA USA, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by THE GUARANTEE COMPANY OF NORTH AMERICA USA, which is still in full force and effect.



IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this

26th day of February 2012

Randall Musselman, Secretary

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED FOR COVERED AUTOS LIABILITY COVERAGE

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" for Covered Autos Liability Coverage under the Who Is An Insured provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured:	Zim Industries, Inc. DBA:Bakersfield Well & Pump Company
Endorsement Effective Date:	3/1/2016

SCHEDULE

Name Of Person(s) Or Organization(s):	Fresno, CA 93725
Zim Industries, Inc. 4545 E. Lincoln	As required by written contract
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

Each person or organization shown in the Schedule is an "insured" for Covered Autos Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Paragraph A.1. of Section II – Covered Autos Liability Coverage in the Business Auto and Motor Carrier Coverage Forms and Paragraph D.2. of Section I – Covered Autos Coverages of the Auto Dealers Coverage Form.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)
As required by written contract
Location and Description Of Completed Operations
As required by written contract
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are

required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to Section III – Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
 2. Available under the applicable Limits of Insurance shown in the Declarations;
- whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

All terms and conditions apply unless modified by this endorsement.



ZURICH

Additional Insured – Automatic – Owners, Lessees Or Contractors

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
GLO8311662-12	3-1-16	3-1-17				

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

Named Insured: Zim Industries, Inc. DBA:Bakersfield Well & Pump Company
Address (including ZIP Code): 4545 E. Lincoln
 Fresno, CA 93725

This endorsement modifies insurance provided under the:
Commercial General Liability Coverage Part

A. Section II – Who is An Insured is amended to include as an additional insured any person or organization whom you are required to add as an additional insured on this policy under a written contract or written agreement. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf,

in the performance of your ongoing operations or "your work" as included in the "products-completed operations hazard", which is the subject of the written contract or written agreement.

However, the insurance afforded to such additional insured:

1. Only applies to the extent permitted by law; and
2. Will not be broader than that which you are required by the written contract or written agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to:

"Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or failure to render, any professional architectural, engineering or surveying services including:

- a. The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
- b. Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or the failure to render any professional architectural, engineering or surveying services.

C. The following is added to Paragraph 2. Duties In The Event Of Occurrence, Offense, Claim Or Suit of Section IV – **Commercial General Liability Conditions:**

The additional insured must see to it that:

1. We are notified as soon as practicable of an "occurrence" or offense that may result in a claim;
2. We receive written notice of a claim or "suit" as soon as practicable; and
3. A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured if the written contract or written agreement requires that this coverage be primary and non-contributory.

D. For the purposes of the coverage provided by this endorsement:

1. The following is added to the Other Insurance Condition of Section IV – **Commercial General Liability Conditions:**

Primary and Noncontributory insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured provided that:

- a. The additional insured is a Named Insured under such other insurance; and
- b. You are required by written contract or written agreement that this insurance be primary and not seek contribution from any other insurance available to the additional insured.

2. The following paragraph is added to Paragraph 4.b. of the Other Insurance Condition of Section IV – **Commercial General Liability Conditions:**

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by a written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

E. This endorsement does not apply to an additional insured which has been added to this policy by an endorsement showing the additional insured in a Schedule of additional insureds, and which endorsement applies specifically to that identified additional insured.

F. With respect to the insurance afforded to the additional insureds under this endorsement, the following is added to Section III – **Limits Of Insurance:**

The most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the written contract or written agreement referenced in Paragraph A. of this endorsement; or
2. Available under the applicable Limits of Insurance shown in the Declarations, whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

All other terms and conditions of this policy remain unchanged.

WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE POLICY

WC 00 03 13

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement, effective on 3-1-16 at 12:01 A.M. standard time, forms a part of
(DATE)

Policy No. WC8311661-12 of the ZURICH AMERICAN INSURANCE COMPANY
(NAME OF INSURANCE COMPANY)

issued to Zim Industries, Inc. DBA:Bakersfield Well & Pump Company



Premium (if any) \$

Authorized Representative

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you performed work under a written contract that requires you to obtain this agreement from us.*

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

ALL PERSONS AND/OR ORGANIZATIONS THAT REQUIRED A WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON AND/OR ORGANIZATION



March 30, 2016

Curt Zimmerer
Zim Industries, Inc.
4545 E. Lincoln Ave.
Fresno, CA 93725

RE: BOND NUMBER: 12129005
PRINCIPAL: Zim Industries, Inc.
OBLIGEE: City of Sacramento
TYPE OF BOND: Performance & Payment bonds
BOND AMT: \$361,963.00
PREMIUM: \$4344.00

Dear Curt:

We are pleased to enclose the bond you requested. The bond issued was based upon the information you provided. We suggest you check all the documents enclosed, including the Power of Attorney, signatures, dates, amounts, description, and any other attachments. Please verify that the bond form attached is the form required, and be sure to execute the bond with the proper signature and seal.

Our premium invoice for this bond will follow under separate cover. Thank you and please call me should you have any questions.

Sincerely,

Lyn Genito

Lyn Genito
Account Manager

Enclosures

**CALIFORNIA LABOR CODE RELATING TO APPRENTICES
ON PUBLIC WORKS PROJECTS**

See following links: www.dir.ca.gov and/or www.leginfo.ca.gov

<http://www.dir.ca.gov/dlse/dlsePublicWorks.html>

CITY OF SACRAMENTO
PERFORMANCE BOND
Department of Utilities

Bond No.: 12129005
Premium: \$4,344.00

WHEREAS, the City of Sacramento, State of California, hereinafter called City, has conditionally awarded to:

Zim Industries, Inc
4545 E. Lincoln Ave
Fresno CA, 93725

as principal, hereinafter called Contractor, a contract for construction of:

Fairbairn Water Treatment Plant Groundwater Well
(PN: Z14120200) (B16141321022)

which contract is by reference incorporated herein and made a part hereof as if the Surety named below were a party to the contract, and is hereinafter referred to as the Contract; and

WHEREAS, under the terms of the Contract, Contractor is required to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, we the Contractor and (*here insert full name and address of Surety*):
The Guarantee Company of North America USA, 1800 Sutter Street, Suite 880, Concord, CA 94520

a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, as obligee, in the sum of: **Three-Hundred Sixty-one Thousand, Nine-Hundred Sixty-Three dollars (\$361,963.00)** for the payment of which sum well and truly to be made, we the Contractor and Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally. The condition of this obligation is such that, if the Contractor, Contractor's heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and fully perform all covenants, conditions and agreements required to be kept and performed by Contractor in the Contract and any changes, additions or alterations made thereto, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meanings, and shall indemnify and save harmless the City, its officers, employees and agents, as therein provided, then the Surety's obligations under the Contract and this bond shall be null and void; otherwise they shall be and remain in full force and effect. This obligation shall remain in full force and effect through the end of the Contract warranty period, which will expire one year after the completion of work date specified in the Notice of Completion filed for the above-named project.

As part of the obligations secured hereby and in addition to the sum specified above, there shall be included all costs, expenses and fees, including attorney's fees, reasonably incurred by City in successfully enforcing such obligations, all to be taxed as costs and included in any judgment rendered.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

IN WITNESS WHEREOF, this instrument has been duly executed by authorized representatives of the Contractor and Surety.
SIGNED AND SEALED on March 30, 2016

Zim Industries, Inc.

By _____ (Contractor) (Seal)

By Curt B. Zimmerman

Title President - Curt B. Zimmerman

ORIGINAL APPROVED AS TO FORM:

City Attorney

The Guarantee Company of North America USA

By _____ (Surety) (Seal)

By Lyn Genito

Title Lyn Genito - Attorney in Fact

Agent Name and Address Alliant Insurance Services Inc.

9'E. River Park Place East, 3rd Fl Fresno, CA 93720

Agent Phone # 559-374-3560

Surety Phone # 925-566-6042

California License # NAIC # 36650 - California Company ID #: 4609-4

Surety Email: kchambers@gcna.com

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Fresno)

On April 6, 2016 before me, Judy M. Muston - Notary Public,
Date Here Insert Name and Title of the Officer

personally appeared Curt B. Zimmerer
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Judy M. Muston
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Performance Bond Document Date: 3/30/16
Number of Pages: 1 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

Civil Code § 1189

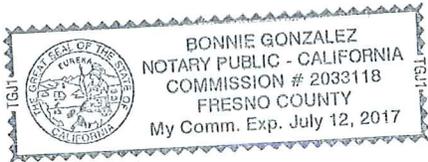
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
) ss
County of Fresno)

On 03-30-2016, before me, Bonnie Gonzalez, Notary Public, personally appeared Lyn Genito, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(Seal)

Signature: Bonnie Gonzalez
Bonnie Gonzalez, Notary Public

CITY OF SACRAMENTO
PAYMENT BOND
Department of Utilities

Bond No.: 12129005
Premium: Included in Performance Bond premium

WHEREAS, the City of Sacramento, in the State of California, hereinafter called City, has conditionally awarded to:

Zim Industries, Inc
4545 E. Lincoln Ave
Fresno CA, 93725

hereinafter called Contractor, a contract for construction of:

Fairbairn Water Treatment Plant Groundwater Well
(PN: Z14120200) (B16141321022)

Which contract is by reference incorporated herein and made a part hereof, and is hereinafter referred to as the Contract; and

WHEREAS, under the terms of the Contract and pursuant to Chapter 5 of Title 3 of Part 6 of Division 4 of the California Civil Code (commencing with Civil Code Section 9550), Contractor is required to furnish a good and sufficient payment bond to secure payment of the claims to which reference is made in Civil Code Section 9554.

NOW, THEREFORE, we the Contractor and (*here insert full name and address of Surety*):
The Guarantee Company of North America USA, 1800 Sutter Street, Suite 880, Concord, CA 94520

_____ a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, and unto all persons or entities entitled to assert a claim against a payment bond under any of the aforesaid Civil Code provisions in the sum of **Three-Hundred Sixty-one Thousand, Nine-Hundred Sixty-Three dollars (\$361,963.00)** on the condition that if Contractor shall fail to pay for any materials or equipment furnished or used in performance of the Contract, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board or the Employment Development Department from the wages of employees of the Contractor and all subcontractors with respect to such work or labor, then the Surety shall pay the same in an amount not exceeding the sum specified above. If suit is brought upon this bond, Surety shall pay, in addition to the above sum, all costs, expenses and fees, including attorney's fees, reasonably incurred by any party in successfully enforcing the obligation secured hereby, all to be taxed as costs and included in any judgment rendered. Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect, and shall bind Contractor, Surety, their heirs, executors, administrators, successors and assigns, jointly and severally.

It is hereby stipulated and agreed that this bond shall inure to the benefit of all persons, companies, corporations, political subdivisions, State agencies and other entities entitled to assert a claim against a payment bond under any of the aforesaid Civil Code provisions, so as to give a right of action to them or their assigns in any suit brought upon this bond. The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

IN WITNESS WHEREOF, this instrument has been duly executed by authorized representatives of the Contractor and Surety. SIGNED AND SEALED on March 30, 2016.

Zim Industries, Inc.

(Contractor) (Seal)
By Curt B. Zimmerman
Title President - Curt B. Zimmerman

The Guarantee Company of North America USA

(Surety) (Seal)
By [Signature]

Title Lyn Genito - Attorney in Fact
Agent Name and Address Alliant Insurance Services Inc.
9 E. River Park Place East, 3rd Fl Fresno, CA 93720
Agent Phone # 559-374-3560
Surety Phone # 925-566-6042
California License # NAIC #: 36650 - California Company ID #: 4609-4
Surety Email: kchambers@gcna.com

ORIGINAL APPROVED AS TO FORM:

City Attorney
Effective 7-1-12

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

County of Fresno)

On April 6, 2016 before me, Judy M. Muston - Notary Public,
Date Here Insert Name and Title of the Officer

personally appeared Curt B. Zimmerer
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Judy M. Muston
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Payment Bond Document Date: 3/30/16
Number of Pages: 1 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

Civil Code § 1189

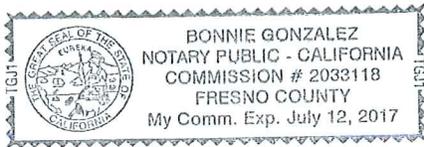
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
) ss
County of Fresno)

On 03-30-2016, before me, Bonnie Gonzalez, Notary Public, personally appeared Lyn Genito, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(Seal)

Signature: Bonnie Gonzalez
Bonnie Gonzalez, Notary Public



POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS: That THE GUARANTEE COMPANY OF NORTH AMERICA USA, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Steven P. Edwards, Cody Lyman, Lyn Genito, Bonnie Gonzalez
Alliant Insurance Services, Inc.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon THE GUARANTEE COMPANY OF NORTH AMERICA USA as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of THE GUARANTEE COMPANY OF NORTH AMERICA USA at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof; and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.
4. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner – Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 6th day of December 2011, of which the following is a true excerpt:

RESOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.



IN WITNESS WHEREOF, THE GUARANTEE COMPANY OF NORTH AMERICA USA has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 23rd day of February, 2012.

THE GUARANTEE COMPANY OF NORTH AMERICA USA

STATE OF MICHIGAN
County of Oakland

Stephen C. Ruschak, Sr. Vice President, COO

Randall Musselman, Secretary

On this 23rd day of February, 2012 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland
My Commission Expires February 27, 2018
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of THE GUARANTEE COMPANY OF NORTH AMERICA USA, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by THE GUARANTEE COMPANY OF NORTH AMERICA USA, which is still in full force and effect.



IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this 31st day of March 2016

Randall Musselman, Secretary

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

Print or type See Specific instructions on page 2.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. Zim Industries, Inc.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____ <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate	
	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>	
	5 Address (number, street, and apt. or suite no.) 4545 E. Lincoln Ave.	Requester's name and address (optional)
	6 City, state, and ZIP code Fresno, CA 93725	
	7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Social security number															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"> </td> </tr> </table>									<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"> </td> </tr> </table>						

or

Employer identification number																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"> </td> </tr> </table>									<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"> </td> </tr> </table>								

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here	Signature of U.S. person ▶ Curt B. Zimmerman, President	Date ▶ March 30, 2016
------------------	--	------------------------------

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

• Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)

• Form 1099-C (canceled debt)

• Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

2016 Withholding Exemption Certificate

590

The payee completes this form and submits it to the withholding agent. The withholding agent keeps this form with their records.

Withholding Agent

Name
City of Sacramento

Payee

Name
Zim Industries, Inc.

SSN or ITIN FEIN CA Corp. no. CA S/B file no.
2809156970927193

Address (apt./ste., room, PO box, or PMB no.)
4545 E Lincoln Ave.

City (If you have a foreign address, see instructions.)

Fresno

State ZIP code
CA 93725

Exemption Reason

Check only one reason box below that applies to the payee.

By checking the appropriate box below, the payee certifies the reason for the exemption from the California income tax withholding requirements on payment(s) made to the entity or individual.

- Individuals — Certification of Residency:**
I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.
- Corporations:**
The corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.
- Partnerships or Limited Liability Companies (LLCs):**
The partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.
- Tax-Exempt Entities:**
The entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 _____ (insert letter) or Internal Revenue Code Section 501(c) _____ (insert number). If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.
- Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit-Sharing Plans:**
The entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.
- California Trusts:**
At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return. If the trustee or noncontingent beneficiary becomes a nonresident at any time, I will promptly notify the withholding agent.
- Estates — Certification of Residency of Deceased Person:**
I am the executor of the above-named person's estate or trust. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return.
- Nonmilitary Spouse of a Military Servicemember:**
I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

CERTIFICATE OF PAYEE: Payee must complete and sign below.

To learn about your privacy rights, how we may use your information, and the consequences for not providing the requested information, go to ftb.ca.gov and search for **privacy notice**. To request this notice by mail, call 800.852.5711.

Under penalties of perjury, I hereby certify that the information provided in this document is, to the best of my knowledge, true and correct. If conditions change, I will promptly notify the withholding agent.

Type or print payee's name and title Zim Industries, Inc., President Telephone 559-834-1551

Payee's signature ▶ Curt B. Zimmerer Date March 30, 2016
Curt B. Zimmerer



BUSINESS OPERATION TAX NOTICE

DATE 04/06/2016

Sacramento.BizTaxesOnline.com

ACCOUNT NUMBER 1024867

BUSINESS CLASSIFICATION Sales & Service

CERTIFICATE PERIOD April 2016 - March 2017

PRIMARY OWNER Curt Zimmerer

NUMBER OF EMPLOYEES 200

BUSINESS NAME Zim Industries, Inc

PAYMENT \$171.79

ADDRESS 4545 E Lincoln AVE
Fresno, CA 93725

Estimated Gross Receipts	\$361,963.00
Adjusted Gross Receipts	\$351,963.00
Tax Rate	0.0004
Subtotal	\$140.79
Minimum Tax	\$30.00
Total Tax Due	\$170.79
State Fee per Senate Bill (Effective 01/01/2013)	\$1.00
Home Based Business	No
Home Occupation Permit Fee	\$0.00
GRAND TOTAL	\$171.79

I declare under penalty of perjury that to my knowledge all information contained in this return is true and correct.

SIGN HERE Boyd Zimmerer

DATE 04/06/2016

*** On September 9, 2012 Governor Brown signed into law SB-1186 which adds a state fee of \$1 on any applicant for a local business license or similar instrument or permit, or renewal thereof. The purpose is to increase disability access and compliance with construction-related accessibility requirements and to develop educational resources for businesses in order to facilitate compliance with federal and state disability laws, as specified. Under federal and state law, compliance with disability access laws is a serious and significant responsibility that applies to all California building owners and tenants with buildings open to the public. You may obtain information about your legal obligations and how to comply with disability access laws at the following agencies:

- The Division of the State Architect at www.dgs.ca.gov/dsa/Home.aspx
- The Department of Rehabilitation at www.rehab.cahwnet.gov
- The California Commission on Disability Access at www.cdda.ca.gov

Thank you for filing your City of Sacramento business tax online.

City of Sacramento City Hall 915 I Street, Room 1214 (916) 808-8500 9 am to noon Office Hours 8:30 am to 4:30 pm Monday - Friday

- Keep your online receipt with confirmation number as your "temporary business tax certificate". The temporary certificate is good for 45 days or until your certificate has been mailed.
- Your certificate will be mailed in 2 to 3 weeks. If you do not receive your certificate within 45 days, please contact Revenue Services at (916) 808-8500, Monday thru Friday 9 am to noon.
- If you are an established business inside the city limits of Sacramento and have recently moved to a new location within the City limits of Sacramento, you are required to obtain a new business operation tax certificate.



City of Sacramento • Revenue Division
 915 I Street, Room 1214 • Sacramento, California 95814
 916.808.8500

**NEW BUSINESS LICENSE
 TAX APPLICATION**

<http://www.cityofsacramento.org/finance/revenue/>

- Online Filing Available at Sacramento.BizTaxesOnline.com • Fast • Easy • Secure •

Business Activity Information		Account Number: 1024867
Business Type: Business Tax		Business Classification: Sales & Service
Business Name (DBA Name Used to Identify your Business): Zim Industries, Inc		Business Start Date: 05/02/2016
Business Phone No.: 5598341551		Owner/Corporation Phone No.: 5598341551
Ownership Type: <input type="checkbox"/> Sole Proprietorship <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> LLC <input type="checkbox"/> Trust <input type="checkbox"/> Other:		
Email Address: boyd@zimindustries.com		Website Address:
Federal ID No.: 94-2597729 Social Security No.:		State Employer ID No.: 28091569 No. of Employees: 200
State Cert. License No.: 440537		Expiration Date: 06/30/2017
Business Description: Water Well Drilling & Pump Installation Contractor		
Business Location Address: 4545 E Lincoln AVE, Fresno, CA 93725		
Home Based Business: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Within City Limits: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Business Improvement Area:		
Mailing Address: 4545 E Lincoln AVE, Fresno, CA 93725		
Contact Information		
Owner/Corporate Name & Title #1: Curt Zimmerer		Mr.
Relationship to Company: OWNER		Social Security Number: 507982899 CA Driver's License: C1210240
Owner/Corporate Address: 4545 E Lincoln AVE, Fresno, CA 93725		
Owner/Corporate Officer's Name & Title #2: William Zimmerer		Mr.
Relationship to Company: OWNER		Social Security Number: 506760214 CA Driver's License: N5791490
Owner/Corporate Officer's Name & Title #3: Robert Zimmerer		Mr.
Relationship to Company: OWNER		Social Security Number: 508769582 CA Driver's License: N9746879
Residential Rental Information		
Property Parcel Number	Property Address	Units
UNIT COUNT TOTAL		

I declare under penalty of perjury that to my knowledge all information contained on this application is true and correct. This tax certificate is for revenue purposes only and does not imply conformance with applicable city codes and ordinances. You are advised to check your proposed business location and structure with the City Planning Division for compliance with zoning codes and the Building Inspections Division for compliance with building codes.

SIGN HERE Boyd Zimmerer DATE 04/06/2016

Thank you for filing your City of Sacramento business tax online.
 This is not a valid temporary certificate until payment is received.

Vendor 11431 City of Sacramento Solid Waste Check 32401 04/07/16

Trx No	Invoice No	Inv Date	Job/Description	Discount	Check Amount
30693	04062016	04/06/16	16041 City of Sacramento,		144.79
				0.00	144.79

ORIGINAL DOCUMENT PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER



ZIM INDUSTRIES, INC.

4545 E. LINCOLN AVENUE
FRESNO, CA 93725
(559) 834-1551



32401
DISBURSEMENT ACCOUNT

CHECK NO.
32401

*****ONE HUNDRED FORTY FOUR DOLLARS AND 79 CENTS*****

CITY OF SACRAMENTO SOLID WASTE SERVICES

DATE
04/07/16

AMOUNT
*****144.79

PAY TO THE ORDER OF



[Handwritten Signature]
AUTHORIZED SIGNATURE



THIS DOCUMENT CONTAINS HEAT SENSITIVE INK. TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT.

⑈032401⑈ ⑆121137522⑆ 1894813235⑈

C&D Debris Waste Management Plan

C&D Debris Waste Management Plan
 City of Sacramento Solid Waste Services
 2812 Meadowview Road, Building 1
 Sacramento, CA 95832
 Phone: (916) 808-4839 / Fax: (916) 808-4999
 C&D@cityofsacramento.org

Form submitted by:

Zim Industries, Inc.; (559) 834-1551; curt@zimindustries.com

Please attach a business card, or put your name with a phone number and/or an email address.

This Waste Management Plan (WMP) must be submitted and approved before work can begin. Only one WMP is required for each public construction project. The administration fee and, if applicable, a security deposit must be submitted with this form to be approved. Administration fee is 0.04% of project bid amount (min \$40, max \$800); security deposit, if applicable, is 1% of bid amount (max \$10,000). The accompanying Waste Log must be submitted within 30 days of the project completion report, or a penalty may be imposed.

Admin Fee \$14478

A. Building Project Information:

APN: 005-0010-011

Job Address:
 Contractor:
 Address:

E.A. Fairbairn Water Treatment Plant
Zim Industries, Inc.
4545 E. Lincoln Ave,
Fresno, CA 93725

Project Bid Amount
 Engineering Estimate: \$361,963.00
 Phone: (559) 834-1551
 Email: curt@zimindustries.com

B. Briefly describe the project:

Drill, construct and develop one 20" diameter groundwater well to a depth of 317 feet. Well is located in Sacramento, CA at intersection of College Town Drive and State University Drive. It is unlikely that any C&D debris will be generated during the course of this project.

C. Materials Required to be Recycled

50% of all debris must be recycled if generated during the course of your project. You can either source-separate them, which may be hauled by anyone, or mix them in one container and send the mixed C&D debris load to a Certified Mixed C&D Sorting Facility. Mixed C&D loads can only be hauled by a franchised hauler or self-hauled. Please see the Definitions section, on the next page, for more information.



D. Material Management.

- How will C&D debris will be stored on the project site: Mixed C&D Source-Separated
- Company to haul away debris: If necessary, self-haul
- Facilities to receive debris: City Supplied Disposal Site, if necessary.

C&D Debris Waste Management Plan

C&D Debris Waste Management Plan
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C&D@cityofsacramento.org

E. Definitions.

Please read and understand these terms. Call Solid Waste at (916) 808-4833 if these terms are not clear to you. More information is also available online at <http://www.cityofsacramento.org/utilities/>.

1. **Self-haul or self-hauling:** This is when the general contractor or a subcontractor *who is doing work on the project* hauls their own waste materials for recycling or disposal. Note that a *jobsite cleanup crew is not doing other work on the project and is not self-hauling*. Jobsite cleanup crews need to be franchised in order to haul mixed C&D debris away.
2. **Franchised hauler:** Check the Department of Utilities (DOU) website for a list of these haulers. Only these companies and the City of Sacramento can collect and haul mixed C&D debris generated within the City for a fee.
3. **Source separation:** This means keeping wood, metal, cardboard, or other recyclables in separate containers, and sending the materials to an authorized recycler. A list of authorized recyclers can be found on the DOU web site. Source-separated materials may be hauled by anyone.
4. **Mixed C&D debris:** This means putting all recyclable debris into one container. Mixed materials must be sent to a certified mixed C&D sorting facility. Mixed materials may be either self-hauled or hauled by a franchised hauler. If your job site is crowded, this option saves the most space.
5. **Certified Mixed C&D Sorting Facility:** See the DOU web site for a list. These facilities have been certified by the Sacramento Regional Solid Waste Authority (SWA) to extract recyclable materials from mixed C&D debris.

F. Terms and Conditions

- Your approved Waste Management Plan and Waste Log must be kept on the job site for the duration of the project.
- City of Sacramento Solid Waste Services staff may enter the jobsite to inspect waste collection areas.
- **ALL Clean Wood Waste** (unpainted, untreated lumber, plywood and OSB), **Inert Materials** (concrete, asphalt paving, brick, block, and dirt), **Wooden Pallets**, **Scrap Metal**, and **Corrugated Cardboard** must be recycled.
- Only SWA-Certified Mixed C&D Sorting Facilities may be used to recycle these materials if mixed with other materials.
- Only the City of Sacramento, SWA-Franchised Haulers, or self-haulers (as defined above) may collect and transport mixed C&D material from the jobsite.
- C&D Debris may not be burned or dumped illegally.
- Your Waste Log must be completed and submitted, with supporting weight tickets, within 30 days of submitting your project completion report. All waste hauling and disposal or recycling activity must be entered on the Waste Log, including information from any subcontractors who self-hauled their own debris off-site.
- You must keep all receipts or weight-tickets from your project for a period of one year from the submittal of your waste log.
- Failure to comply with these terms and conditions may result in a fine and payment of a security deposit on future projects

C&D Debris Haulers & Facilities

C&D Debris Waste Management Plan
City of Sacramento Solid Waste Services
2812 Meadowview Road, Building 1
Sacramento, CA 95832
Phone: (916) 808-4833 / Fax: (916) 808-4999
C&D@cityofsacramento.org

Certified Mixed C&D Facilities

Allied Waste / Elder Creek Transfer and Recovery	(916) 387-8425
Florin-Perkins Public Disposal	(916) 443-5120
L&D Landfill	(916) 737-8640
Waste Management / K&M Recycle America	(916) 452-0142

Franchised Haulers

ACES Waste Services, Inc.	(866) 488-8837	Elk Grove Waste Management, LLC	(916) 689-4052
Allied Waste Services	(916) 631-0600	Mini Drops, Inc.	(916) 686-8785
All Waste Systems, Inc.	(916) 456-1555	Norcal Waste Services of Sacramento	(916) 381-5300
Atlas Disposal Industries, LLC	(916) 455-2800	North West Recyclers	(916) 686-8575
California Waste Recovery Systems	(916) 441-1985	Waste Management of Sacramento	(916) 387-1400
Central Valley Waste Services, Inc.	(209) 369-8274	Waste Removal & Recycling	(916) 453-1400
City of Sacramento Solid Waste	(916) 808-4839	Western Strategic Materials, Inc.	(916) 388-1076

Recyclers*

Bell Marine	(916) 442-9089
C & C Paper Recycling	(916) 920-2673
EBI Aggregates	(916) 372-7580
International Paper	(916) 371-4634
Modern Waste Solutions	(916) 447-6800
PRIDE Industries, Inc.	(916) 640-1300
Recycling Industries, Inc.	(916) 452-3961
Sacramento Local Conservation Corps	(916) 386-8394
Smurfit-Stone Container Corporation	(916) 381-3340
Southside Art Center	(916) 387-8080
Spencer Building Maintenance, Inc.	(916) 922-1900

Recovery Stations & Landfills

Elder Creek Recovery & Transfer Station	(916) 387-8425
Kiefer Landfill	(916) 875-5555
L & D Landfill	(916) 383-9420
North Area Recovery Station	(916) 875-5555
Sacramento Recycling & Transfer Station	(916) 379-0500
Waste Management Recycle America	(916) 452-0142

More updated information can be found online at:

<http://www.cityofsacramento.org/utilities/>

* Please note that any facility may receive source-separated recyclable materials as long as it is authorized to do so by the State of California. This is not meant to be a complete list.

Construction and Demolition (C&D) Debris Recycling Requirements

As a condition of receiving this Contract, Contractor agrees to fully comply with the requirements specified herein for all demolition projects, as well as projects with a valuation of \$250,000 or more:

1. **Definitions.** For purposes of this section, the following terms, words and phrases shall have the following meanings:

“Certified C&D sorting facility” means a facility that receives C&D debris and/or processes C&D debris into its component material types for reuse, recycling, and disposal of residuals and possesses a valid certificate as a C&D sorting facility from the Sacramento Regional County Solid Waste Authority.

“Construction and demolition debris” or “C&D debris” means used or commonly discarded materials resulting from construction, repair, remodel or demolition operations on any pavement, house, building, or other structure, or from landscaping that are not hazardous as defined in California Health and Safety Code section 25100 et seq. Such materials include, but are not limited to, concrete, asphalt, wood, metal, brick, dirt, sand, rock, gravel, plaster, glass, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, masonry, plastic pipe, trees, and other vegetative matter resulting from land clearing and landscaping.

“Divert” or “diversion” means to use materials for any purpose other than disposal in a landfill or transformation facility. Methods to divert materials include on-site reuse of the materials, delivery of materials from the project site to a certified C&D sorting facility or a recycling facility, or other methods as approved in regulations promulgated by the City Department of Utilities.

“Franchised waste hauler” means a person who possesses a valid commercial solid waste collection franchise issued by the Sacramento Regional County Solid Waste Authority.

“Mixed C&D debris” means loads that include commingled recyclable and non-recyclable C&D debris generated at a project site.

“Recyclable C&D debris” means C&D debris required to be diverted from landfills as specified in the Waste Management Plan and returned to the economic mainstream in the form of raw material for new, reused or reconstituted products that meet the quality standards necessary to be used in the marketplace.

“Recycling facility” means a facility or operation that receives, processes, and transfers source-separated recyclable materials.

“Source-separated C&D debris” means recyclable C&D debris that is separately sorted and containerized at the site of generation by individual material type and segregated from mixed C&D debris prior to collection and transporting.

“Waste log” means a record detailing the management of C&D debris generated by the covered project, including the date and weight/volume of material by type that was salvaged, reused, recycled or disposed.

2. **Waste Management Plan.** A completed WMP (see **Attachment 1**) must be submitted to and approved by the City prior to commencing any work on the project. The WMP must specify the types of C&D debris that will be generated from the project; the manner in which C&D debris will be managed and/or stored on the project site; the manner in which recyclable C&D debris generated from the project will be recycled or reuse; the person who will haul, collect or transport the recyclable C&D debris from the project site; and the certified C&D sorting facility or recycling facility where recyclable C&D debris will be delivered. The WMP must be approved by the City prior to commencing any work on the project.

3. Contractor shall be solely responsible for diverting the recyclable C&D materials specified on the WMP. Mixed C&D debris shall be delivered to a SWA-certified C&D sorting facility only. Only the permit holder, the person who generates the waste, a franchised waste hauler, or the City of Sacramento can transport or haul mixed C&D debris. Source-separated C&D debris may be delivered by any person to any recycling facility that accepts such materials. (See **Attachment 2** for list of C&D Debris Haulers and Facilities).

4. During the course of the project, Contractor shall maintain a waste log (see **Attachment 3**), and keep all weight tickets or weight receipts, for all C&D debris hauled away from the project. At a minimum, the waste log shall specify the C&D debris generated by the project; the manner in which C&D debris was recycled or re-used; and the facility where the C&D debris was delivered.

5. Within 30 days after submitting the project completion report, Contractor shall submit to the City a completed waste log, along with copies of supporting weight tickets. Contractor shall maintain and keep accurate and complete records of all bills, weight receipts or weight tickets that were issued for the collection, transport or disposal of C&D debris for a period of one-year after submittal of the waste log. The records shall be made available for inspection, examination and audit by the City during the one-year retention period to validate the information provided in the WMP and in the waste log. If the City determines noncompliance by the Contractor after an audit has been conducted, Contractor shall reimburse the City for all costs incurred in performing the audit.

6. Failure by Contractor to comply with any provisions specified herein will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; imposition of a penalty, payable to the City (\$50-\$250 for first offense, \$251-\$500 for second offense, and \$501-\$1500 for subsequent offenses); and/or submission of a performance security deposit fee when submitting a permit application to the City for a project within one year of imposition of the penalty.

For questions or to obtain more information about the Recycling Requirements for C&D debris, contact the City of Sacramento, Solid Waste Services Division, 2812 Meadowview Road, Building 1, Sacramento, CA 95832, or telephone (916) 808-4833, or email C&D@cityofsacramento.org

Grant Agreement No. 4600009678

**GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA (DEPARTMENT OF WATER RESOURCES) AND
REGIONAL WATER AUTHORITY, AGREEMENT NO. 4600009678
INTEGRATED REGIONAL WATER MANAGEMENT (IRWM) IMPLEMENTATION GRANTS
CALIFORNIA PUBLIC RESOURCES CODE §75026 ET SEQ.**

THIS AGREEMENT is entered into by and between the Department of Water Resources of the State of California, herein referred to as the "State" and the Regional Water Authority, a joint powers authority in the greater Sacramento, Placer, El Dorado, and Yolo Counties within the State of California, duly organized, existing, and acting pursuant to the laws thereof, herein referred to as the "Grantee", which parties do hereby agree as follows:

1. PURPOSE. State shall provide a grant from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 to Grantee to assist in financing projects associated with the American River Basin Integrated Regional Water Management (IRWM) Plan pursuant to Chapter 8 (commencing with Section 79560) of Division 26.5 of the California Water Code (CWC), hereinafter collectively referred to as "IRWM Program."
2. TERM OF GRANT AGREEMENT. The term of this Grant Agreement begins on the date this Grant Agreement is executed by State, and terminates on June 1, 2016, or when all of the Parties' obligations under this Grant Agreement are fully satisfied, whichever occurs earlier. Execution date is the date the State signs this Grant Agreement indicated on page 8.
3. GRANT AMOUNT. The maximum amount payable by State under this Grant Agreement shall not exceed \$16,030,766. Of the total grant amount, not less than \$1,901,293 shall be expended to urban and agricultural water conservation projects in the IRWM effort funded by this Grant Agreement.
4. GRANTEE COST SHARE. The reasonable costs for this Agreement are estimated to be \$56,161,041. Grantee shall provide a Cost Share in the amount of at least 25% of the total project cost. Grantee's Total Cost Share is estimated to be \$40,130,275. The Required Grantee's Cost Share (i.e., 25%) for purposes of this Agreement shall be \$14,040,260. The Grantee's Funding may include cost share incurred after September 30, 2008. Additional explanation of Grantee's Cost Share as it relates to method of payment is provided in Section 10(d).
5. GRANTEE'S RESPONSIBILITY. Grantee shall faithfully and expeditiously perform or cause to be performed all project work as described in Exhibit A (Work Plan) and in accordance with Project Exhibit B (Schedule) and Exhibit C (Budget). Grantee shall comply with all of the terms and conditions of this Grant Agreement and applicable California Public Resources Code (PRC) requirements.
6. LOCAL PROJECT SPONSOR'S RESPONSIBILITY. Grantee shall assign Local Project Sponsors to act on behalf of Grantee for the purposes of individual project management, oversight, compliance, and operations and maintenance. Local Project Sponsors shall be assigned in accordance with the participating agencies identified in the American River Basin IRWM Implementation Program grant application. Exhibit F identifies Local Project Sponsors. Local Project Sponsors shall also act on behalf of Grantee in the fulfillment of Grantee responsibilities where specifically specified in this Grant Agreement.
7. BASIC CONDITIONS. State shall have no obligation to disburse money for a project under this Grant Agreement unless and until Grantee has satisfied the following conditions in accordance with the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006.
 - a) By signing this Grant Agreement, Grantee demonstrates the designated Local Project Sponsors for each project are aware of and comply with the provisions of the Grant Agreement between State and Grantee.
 - b) Grantee demonstrates the availability of sufficient funds to complete the project, as stated in the Grant Award/Commitment Letter, by submitting the most recent 3 years of audited financial statements.
 - c) Grantee complies with PRC §75102 to notify the California Native American tribe (which is on the contact list maintained by the Native American Heritage Commission) of Project Construction if that tribe has traditional lands located within the area of the Project.

- d) For groundwater management and recharge projects and for projects with potential groundwater impacts, the Grantee must demonstrate compliance with the groundwater compliance options set forth on page 15 of the IRWM Program Guidelines, dated August 2010.
- e) For the term of this Grant Agreement, Grantee submits timely Quarterly Progress Reports as required by Paragraph 17, "Submission of Reports."
- f) Grantee submits all deliverables as specified in this Paragraph of this Grant Agreement and Work Plan in Exhibit A.
- g) For each project, prior to the commencement of construction or implementation activities, Grantee shall submit to the State the following:
 - 1) Final plans and specifications certified by a California Registered Civil Engineer as to compliance for each approved project as listed in Exhibit A of this Grant Agreement.
 - 2) Work that is subject to the California Environmental Quality Act (CEQA) and or environmental permitting shall not proceed under this Grant Agreement until the following actions are performed:
 - i. Grantee submits all applicable environmental permits as indicated on the Environmental Information Form to the State,
 - ii. Documents that satisfy the CEQA process are received by the State,
 - iii. State has completed its CEQA compliance review as a Responsible Agency, and
 - iv. Grantee receives written concurrence from the State of Lead Agency's CEQA document(s) and State notice of verification of environmental permit submittal.State's concurrence of Lead Agency's CEQA documents is fully discretionary and shall constitute a condition precedent to any work (ex. construction or implementation activities) for which it is required. Therefore, the Grantee should get concurrence from DWR on CEQA before beginning any of the work that is subject to CEQA. Once CEQA documentation has been completed, State will consider the environmental documents and decide whether to continue to fund the project or to require changes, alterations or other mitigation. Grantee must also demonstrate that it has complied with all applicable requirements of the National Environmental Policy Act by submitting copies of any environmental documents, including environmental impact statements, Finding of No Significant Impact, mitigation monitoring programs, and environmental permits as may be required prior to beginning construction/implementation.
 - 3) For each project included in this Grant Agreement a monitoring plan as required by Paragraph 22, "Project Monitoring Plan Requirements."
- h) Since the Grantee's IRWM region (region) receives water supplied from the Sacramento-San Joaquin Delta (Delta), then the region's IRWM Plan (existing or any future update) must help reduce dependence on the Delta for water supply.

- 8. DISBURSEMENT OF GRANT FUNDS. Following the review of each invoice, State will disburse to Grantee the amount approved, subject to the availability of funds through normal State processes. Notwithstanding any other provision of this Grant Agreement, no disbursement shall be required at any time or in any manner which is in violation of, or in conflict with, federal or state laws, rules, or regulations, or which may require any rebates to the federal government, or any loss of tax-free status on state bonds, pursuant to any federal statute or regulation. For each project, funds will be disbursed by State in response to each approved invoice in accordance with the Exhibit C. Any and all money disbursed to Grantee under this Grant Agreement and any and all interest earned by Grantee on such money shall be used solely to pay Eligible Costs.
- 9. ELIGIBLE PROJECT COST. Grantee shall apply State funds received only to eligible Project Costs in accordance with applicable provisions of the law and Exhibit C. Eligible project costs include the reasonable costs of studies, engineering, design, land and easement acquisition, legal fees, preparation of environmental documentation, environmental mitigations, monitoring, and project construction. Work performed after the date of grant award, August 16, 2011, shall be eligible for reimbursement. Reasonable administrative expenses may be included as Project Costs and will depend on the complexity of the project preparation, planning, coordination, construction, acquisitions, implementation, and maintenance. Reimbursable administrative expenses are the necessary costs incidentally but directly related to the project including the portion of overhead and administrative expenses that are directly related to the projects included in this Agreement in accordance with the standard accounting practices of the Grantee.

Advanced funds will not be provided. Costs that are not reimbursable with grant funds cannot be counted as cost share. Costs that are not eligible for reimbursement include but are not limited to:

- a) Costs, other than those noted above, incurred prior to the award date of the Grant.
- b) Operation and maintenance costs, including post construction performance and monitoring costs.
- c) Purchase of equipment not an integral part of a project.
- d) Establishing a reserve fund.
- e) Purchase of water supply.
- f) Monitoring and assessment costs for efforts required after project construction is complete.
- g) Replacement of existing funding sources for ongoing programs.
- h) Travel and per diem costs.
- i) Support of existing agency requirements and mandates (e.g. punitive regulatory agency requirements).
- j) Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of a project, as set forth and detailed by engineering and feasibility studies, or land purchased prior to the effective date of the grant award with the State.
- k) Payment of principal or interest of existing indebtedness or any interest payments unless the debt is incurred after execution of this Grant Agreement, the State agrees in writing to the eligibility of the costs for reimbursement before the debt is incurred, and the purposes for which the debt is incurred are otherwise eligible costs. However, this will only be allowed as Grantee cost share (i.e. Funding Match)
- l) Overhead not directly related to project costs.

10. **METHOD OF PAYMENT.** After the disbursement requirements in Paragraph 7 "Basic Conditions" are met, State will disburse the whole or portions of the Grant Amount to Grantee, following receipt from Grantee of an invoice for costs incurred, and timely Quarterly Progress Reports as required by Paragraph 17, "Submission of Reports."

Invoices submitted by Grantee shall include the following information:

- a) Costs incurred for work performed in implementing the IRWM Program or program contracts during the period identified in the particular invoice.
- b) Costs incurred for any interests in real property (land or easements) that have been necessarily acquired for a project during the period identified in the particular invoice for the construction, operation, or maintenance of a project.
- c) Appropriate receipts and reports for all costs incurred.
- d) As the Project will include relatively high cost share amounts (estimated at 71.5% of the total project cost), Grantee's cost share has been divided into "Required Cost Share" and "Additional Cost Share" as documented in Exhibit C. Required Cost Share means twenty five percent of the total project cost and reporting is mandatory. Additional Cost Share means any cost share exceeding 25% and reporting is not mandatory. Grantee is required to maintain records of all cost share (Required and Additional), but Grantee is only responsible for providing documentation to the State to substantiate the Required Cost Share amount (i.e. 25%) unless otherwise requested by State. Retention will not be released until the entire project is complete (grant share, required, and total cost share).
- e) Invoices shall be submitted on forms provided by State and shall meet the following format requirements:
 - 1) Invoices must contain the date of the invoice, the time period covered by the invoice, and the total amount due.
 - 2) Invoices must be itemized based on the categories specified in the Exhibit C. The amount claimed for salaries/wages/consultant fees must include a calculation formula (i.e., hours or days worked times the hourly or daily rate = the total amount claimed).
 - 3) Sufficient evidence (i.e., receipts, copies of checks, time sheets) must be provided for all costs included in the invoice.
 - 4) Each invoice shall clearly delineate those costs claimed for reimbursement from the State's grant amount, as depicted in Paragraph 3, "Grant Amount" and those costs that represent Grantee's and Local Project Sponsors' costs, as applicable, in Paragraph 4, "Grantee Cost Share."
 - 5) Original signature and date (in ink) of Grantee's Project Manager.

Payment will be made no more than monthly, in arrears, upon receipt of an invoice bearing the Grant Agreement number. Submit the original and three (3) copies of the invoice form to the following address:

Department of Water Resources
Teji Sandhu
901 P Street, Sacramento
CA 94236-0001
Phone: (916) 651-9254
Fax: (916)651-9292
E-mail: tksandhu@water.ca.gov

11. WITHHOLDING OF GRANT DISBURSEMENT BY STATE. If State determines that a project is not being implemented in accordance with the provisions of this Grant Agreement, or that Grantee has failed in any other respect to comply with the provisions of this Grant Agreement, and if Grantee does not remedy any such failure to State's satisfaction, State may withhold from Grantee all or any portion of the Grant Amount and take any other action that it deems necessary to protect its interests. State may require the Grantee to immediately repay all or any portion of the disbursed grant amount with interest, consistent with its determination. State may consider Grantee's refusal to repay the requested disbursed grant amount a contract breach subject to the default provisions in Paragraph 13, "Default Provisions."

If State notifies Grantee of its decision to withhold the entire grant amount from Grantee pursuant to this Paragraph, this Grant Agreement shall terminate upon receipt of such notice by Grantee and shall no longer be binding on either party.

12. CONTINUING ELIGIBILITY. Grantee must meet the following ongoing requirements to remain eligible to receive State grant funds:
- Timely adoption of an IRWM Plan that meets the requirements contained in Part 2.2 of Division 6 of the CWC, commencing with Section 10530.
 - An urban water supplier that receives grant funds governed by this Grant Agreement shall maintain compliance with the Urban Water Management Planning Act (CWC§10610 *et. seq.*)
 - For groundwater management and recharge projects and for projects with potential groundwater impacts, the Grantee must demonstrate compliance with the groundwater compliance options set forth on page 15 of the IRWM Program Guidelines, dated August 2010.
 - Reporting of status of IRWM Plan Update as described in Exhibit E under the heading "Quarterly Progress Report."
13. DEFAULT PROVISIONS. Grantee will be in default under this Grant Agreement if any of the following occur:
- Breach of this Grant Agreement, or any supplement or amendment to it, or any other agreement between Grantee and State evidencing or securing Grantee's obligations.
 - Making any false warranty, representation, or statement with respect to this Grant Agreement.
 - Failure to operate or maintain projects in accordance with this Grant Agreement.
 - Failure to make any remittance required by this Grant Agreement.
 - Failure of Grantee or a Local Project Sponsor receiving grant funding through this Grant Agreement to adopt, no later than 2 years after the State executes the Grant Agreement, an IRWM Plan that meets the requirements contained in Part 2.2 of Division 6 of the CWC, commencing with Section 10530.
 - Failure to undertake all reasonable and feasible efforts to take into account the water-related needs of disadvantaged communities in the area within the boundaries of the IRWM Plan.
 - Failure to comply with Labor Compliance Program (LCP) requirements.
 - Failure to meet any of the requirements set forth in Paragraph 12, "Continuing Eligibility."

Should an event of default occur, State may do any or all of the following:

- Declare the Grant be immediately repaid, with interest, which shall be equal to State of California general obligation bond interest rate in effect at the time of the default.
- Terminate any obligation to make future payments to Grantee.
- Terminate the Grant Agreement.
- Take any other action that it deems necessary to protect its interests.

14. PERMITS, LICENSES, APPROVALS, AND LEGAL OBLIGATIONS: Grantee and Local Project Sponsors shall be responsible for ensuring any and all permits, licenses, and approvals required for performing their obligations under this Grant Agreement are obtained, and shall comply with CEQA (PRC Section 21000 *et seq.*) and other applicable federal, State and local laws, rules, and regulations, guidelines, and requirements for each project described in Exhibit A.
15. RELATIONSHIP OF PARTIES. Grantee and Local Project Sponsors are solely responsible for design, construction, and operation and maintenance of Projects within the American River Basin IRWM Implementation Program. Review or approval of plans, specifications, bid documents, or other construction documents by State is solely for the purpose of proper administration of grant funds by State and shall not be deemed to relieve or restrict responsibilities of Grantee and Local Project Sponsors under this Grant Agreement.
16. GRANTEE REPRESENTATIONS. Grantee accepts and agrees to comply with all terms, provisions, conditions, and written commitments of this Grant Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by Grantee in the application, documents, amendments, and communications filed in support of its request for Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 financing. Grantee warrants that all Local Project Sponsors will be contractually required to comply with this Grant Agreement for their respective project or projects.
17. SUBMISSION OF REPORTS. The submittal and approval of all reports is a requirement for the successful completion of this Grant Agreement. Reports shall meet generally accepted professional standards for technical reporting and shall be proofread for content, numerical accuracy, spelling, and grammar prior to submittal to State. All reports shall be submitted to the State's Project Manager, and shall be submitted in both electronic and hard copy forms. If requested, Grantee shall promptly provide any additional information deemed necessary by State for the approval of reports. Reports shall be presented in the formats described in the applicable portion of Exhibit E. The timely submittal of reports is a requirement for initial and continued disbursement of State funds. Submittal and subsequent approval by the State, of a Project Completion Report for each project listed on Exhibit A is a requirement for the release of any funds retained for such project.
- Quarterly Progress Reports: Grantee shall submit Quarterly Progress Reports on a regular and consistent basis to meet the State's requirement for disbursement of funds. Quarterly Progress Reports shall be sent via e-mail, to the State's Project Manager as specified in Exhibit B. Quarterly Progress Reports shall provide a brief description of the work performed, Grantees activities, milestones achieved, updated individual project schedules that provide detail as to how each project is progressing, and any accomplishments and any problems encountered in the performance of the work under this Grant Agreement during the reporting period. The first Quarterly Progress Report should be submitted to DWR no later than August 1, 2012 with future reports then due on successive three month increments based on the invoking schedule and this date.
 - Project Completion Reports: Grantee shall prepare and submit to State a separate Project Completion Report for each project included in Exhibit A. Grantee shall submit a Project Completion Report within ninety (90) calendar days of project completion. Each Project Completion Report shall include a description of actual work done, any changes or amendments to each project, and a final schedule showing actual progress versus planned progress, and copies of any final documents or reports generated or utilized during a project. The Project Completion Report shall also include, if applicable, certification of final project by a registered civil engineer, consistent Standard Condition D-15, "Final Inspections and Certification of Registered Civil Engineer." A DWR "Certification of Project Completion" form will be provided by the State.
 - Grant Completion Report: Upon completion of all projects included in Exhibit A, Grantee shall submit to State a Grant Completion Report. The Grant Completion Report shall be submitted within ninety (90) calendar days of submitting the Project Completion Report for the final project to be completed under the Grant Agreement. The Grant Completion Report shall include reimbursement status, a brief description of each project completed, and how those projects will further the goals of the IRWM Plan and identify any changes to the IRWM Plan, as a result of project implementation. Retention for the last

project to be completed as part of this Grant Agreement will not be disbursed until the Grant Completion Report is submitted to and approved by the State.

- Post-Performance Reports: Grantee shall submit a Post-Performance Report for each project. Post-Performance Reports shall be submitted to State within ninety (90) calendar days after the first operational year of a project has elapsed. This record keeping and reporting process shall be repeated, for each project, annually for a total of 10 years after the completed project begins operation.

18. IRWM PROGRAM PERFORMANCE AND ASSURANCES. Grantee agrees to faithfully and expeditiously perform or cause to be performed all IRWM Program work as described in the final plans and specifications for each project under this Grant Agreement and implement the project in accordance with applicable provisions of the law. In the event State finds it necessary to enforce this provision of this Grant Agreement in the manner provided by law, Grantee agrees to pay all costs incurred by State including, but not limited to, reasonable attorneys' fees, legal expenses, and costs.
19. LABOR COMPLIANCE. Grantee will be required to keep informed of and take all measures necessary to ensure compliance with applicable California Labor Code requirements, including, but not limited to, Section 1720 et seq. of the California Labor Code regarding public works, limitations on use of volunteer labor (California Labor Code Section 1720.4), labor compliance programs (California Labor Code Section 1771.5) and payment of prevailing wages for work done and funded pursuant to these *Guidelines*, including any payments to the Department of Industrial Relations under California Labor Code Section 1771.3.
20. OPERATION AND MAINTENANCE OF PROJECT. For the useful life of construction and implementation projects and in consideration of the Grant made by State, Grantee agrees to ensure or cause to be performed the commencement and continued operation of the projects, and shall ensure or cause the projects to be operated in an efficient and economical manner; shall ensure all repairs, renewals, and replacements necessary to the efficient operation of the same are provided; and shall ensure or cause the same to be maintained in as good and efficient condition as upon its construction, ordinary and reasonable wear and depreciation excepted. The Grantee shall ensure that all operations and maintenance costs of the facilities and structures are contractually assumed by the appropriate Local Project Sponsors for their respective projects; State shall not be liable for any cost of such maintenance, management, or operation. Grantee or Local Project Sponsors may be excused from operations and maintenance only upon the written approval of the State's Project Manager. For purposes of this Grant Agreement, "useful life" means period during which an asset, property, or activity is expected to be usable for the purpose it was acquired or implemented; "operation costs" include direct costs incurred for material and labor needed for operations, utilities, insurance, and similar expenses, and "maintenance costs" include ordinary repairs and replacements of a recurring nature necessary for capital assets and basic structures and the expenditure of funds necessary to replace or reconstruct capital assets or basic structures. Refusal of Grantee to ensure operation and maintenance of the projects in accordance with this provision may, at the option of State, be considered a breach of this Grant Agreement and may be treated as default under Paragraph 13, "Default Provisions."
21. STATEWIDE MONITORING REQUIREMENTS. Grantee shall ensure that all groundwater projects and projects that include groundwater monitoring requirements are consistent with the Groundwater Quality Monitoring Act of 2001 (Part 2.76 (commencing with Section 10780) of Division 6 of CWC) and, where applicable, that projects that affect water quality shall include a monitoring component that allows the integration of data into statewide monitoring efforts, including where applicable, the Surface Water Ambient Monitoring Program carried out by the State Water Resources Control Board.
22. PROJECT MONITORING PLAN REQUIREMENTS. The Grant Agreement work plan should contain activities to develop and submit to State a monitoring plan for each project contained in this Grant Agreement. Monitoring plan can be for the entire Proposal or on a per project basis. Along with the Attachment 6 Project Performance Measures Tables requirements outlined on page 21 of the Proposition 84 Round 1 Implementation Proposal Solicitation Package, the Project Monitoring Plan should also include:
 - a) Baseline conditions.

- b) Brief discussion of monitoring systems to be utilized.
- c) Methodology of monitoring.
- d) Frequency of monitoring.
- e) Location of monitoring points.

A monitoring plan shall be submitted to the State prior to disbursement of grant funds for construction or monitoring activities for each project in this Grant Agreement. See Exhibit G ("Requirements for Data Submittal") for web links and information regarding other State monitoring and data reporting requirements.

23. NOTIFICATION OF STATE. For each project, Grantee shall promptly notify State, in writing, of the following items:
- a) Events or proposed changes that could affect the scope, budget, or work performed under this Grant Agreement. Grantee agrees that no substantial change in the scope of a project will be undertaken until written notice of the proposed change has been provided to State and State has given written approval for such change. Substantial changes generally include changes to the wording/scope of work, schedule or term, and budget. See Exhibit H for guidance on Agreement Amendment requirements.
 - b) Any public or media event publicizing the accomplishments and/or results of this Grant Agreement and provide the opportunity for attendance and participation by State's representatives. Grantee shall make such notification at least fourteen (14) calendar days prior to the event.
 - c) Completion of work on a project shall include final inspection of a project by a Registered Civil Engineer, as determined and required by State, and in accordance with Standard Condition D-15 (Final Inspections and Certification of Registered Civil Engineer). Furthermore, the Grantee shall provide the State the opportunity to participate in the inspection. Grantee shall make such notification at least fourteen (14) calendar days prior to the final inspection.
24. NOTICES. Any notice, demand, request, consent, or approval that either party desires or is required to give to the other party under this Grant Agreement shall be in writing. Notices may be transmitted by any of the following means: (i) by delivery in person; (ii) by certified U.S. mail, return receipt requested, postage prepaid; (iii) by "overnight" delivery service; provided that next-business-day delivery is requested by the sender; or (iv) by electronic means. Notices delivered in person will be deemed effective immediately on receipt (or refusal of delivery or receipt). Notices sent by certified mail will be deemed effective given ten (10) calendar days after the date deposited with the U. S. Postal Service. Notices sent by overnight delivery service will be deemed effective one business day after the date deposited with the delivery service. Notices sent electronically will be effective on the date of transmission, which is documented in writing. Notices shall be sent to the below addresses. Either party may, by written notice to the other, designate a different address that shall be substituted for the one below.
25. PERFORMANCE EVALUATION. Upon completion of this Grant Agreement, Grantee's performance will be evaluated by the State and a copy of the evaluation will be placed in the State file and a copy sent to the Grantee.
26. PROJECT REPRESENTATIVES. The Grantee has acknowledged authorization to enter into a cost sharing partnership agreement as documented in Exhibit I. The Project Representatives during the term of this Grant Agreement is as follows.

Department of Water Resources
Paula Landis
Chief, Division of IRWM
P.O. Box 942836
Sacramento CA 94236-0001

Phone: (916) 651-9220
e-mail: plandis@water.ca.gov

Regional Water Authority
John K. Woodling
Executive Director
5620 Birdcage Street, Suite 180
Citrus Heights, CA. 95610

Phone: (916)967-7692
e-mail: jwoodling@rwah2o.org

Direct all inquiries to the Project Manager:

Department of Water Resources Teji Sandhu Division of Integrated Regional Water Management 901 P Street Sacramento, CA. 94236-0001	Regional Water Authority Robert J. Swartz 5620 Birdcage Street, Suite 180 Citrus Heights, CA. 95610
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Phone: (916) 651-9254 e-mail: tksandhu@water.ca.gov	Phone: (916) 967-7692 e-mail: rswartz@rwah2o.org
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Either party may change its Project Representative or Project Manager upon written notice to the other party.

27. STANDARD PROVISIONS. The following Exhibits are attached and made a part of this Grant Agreement by this reference:

- Exhibit A – Work Plan
- Exhibit B – Schedule
- Exhibit C – Budget
- Exhibit D – Standard Conditions
- Exhibit E – Report Formats and Requirements
- Exhibit F – Local Project Sponsors
- Exhibit G – Requirements for Data Submittal
- Exhibit H – Guidelines for Grantees
- Exhibit I – Grantee Resolution

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement.

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

REGIONAL WATER AUTHORITY

 Paula J. Landis, P.E., Chief
 Division of Integrated Regional Water
 Management
 Date _____

 John K. Woodling
 Executive Director
 Date _____

Approved as to Legal Form and Sufficiency

 Spencer Kenner, Assistant Chief Counsel
 Office of Chief Counsel

Date _____

EXHIBIT A WORK PLAN

PROJECT 1: CITY OF ROSEVILLE ASR PROGRAM – PHASE 2

Project Description

The project will install the above-ground well equipment for Hayden Park and Del Web wells as part of the City of Roseville's (City) Aquifer Storage and Recovery (ASR) project. Each well will have an injection capacity of 900 gallons per minute (gpm) and extraction capacity of 1,800 gpm. The project will store and recover an estimated average annual 480 acre-feet (AF) per year in the basin.

The total estimated budget for this project is \$4,437,513 (Required Cost Share: \$750,000; Grant Share: \$1,976,397; Additional Cost Share: \$1,711,116).

Direct Project Administration

This task includes general project administration, labor compliance, quarterly reporting, and project completion reporting. Project administration includes City council communications, budget adjustments, project status meetings, and communication with RWA and contractors. Labor compliance will be implemented under an approved labor compliance program (LCP). Quarterly reports will be prepared assessing the progress and accomplishments of the project. A project completion report will also be prepared at the end of the project, as well as, annual reports.

The total estimated budget for this task is \$79,893 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$79,893).

Land Purchase/Easement

Land and rights-of-way acquisition are not required for the project.

Planning/Design/Engineering/Environmental Documentation

This task includes final design, environmental documentation, and permit preparation activities. The plans and specifications prepared for these wells will be revised and updated, which includes the installation of wellhead facilities on the two installed wells in addition to above-ground improvements. Design will be completed by City staff. From the final plans and specifications, a bid package will be developed for the above-ground infrastructure. For this project, the City of Roseville's Design and Construction Standards will be used as well as any other applicable standards (e.g. California Water Well Standards).

In order to be compliant with the California Environmental Quality Act (CEQA), a project-specific Environmental Impact Report (EIR) will be completed for the City's ASR Program. The budget associated with the drafting and adoption of the EIR is not included here as the project is not requesting grant funds nor will funding match be used for this task.

The City will acquire a Waste Discharge Requirement (WDR) permit from the Regional Water Quality Control Board (RWQCB) for injecting treated water into the aquifer. As the wells are constructed and brought online, the California Department of Public Health (CDPH) needs to approve the use of the wells for public water supply. Therefore, after the construction of the above-ground infrastructure at the two well sites, the City will file Public Water Supply Amendment.

The Bid Package to be used for bid solicitation will be prepared under this task, and will include the final plans and specifications for the Hayden Parkway Well and Del Web Well Above-Ground Infrastructure. Construction submittal will include Insurance Requirements, the Notice to Proceed (NTP), and a Stormwater Pollution Prevention Plan (SWPPP).

The total estimated budget for this task is \$391,862 (Required Cost Share: \$150,000, Grant Share: \$0; Additional Cost Share: \$241,862). Direct expenses for permits are included under the "Other" category below.

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Includes clearing grubbing, storm drain inlet protection, stormwater best management practices (BMPs) installation, and electrical, communication and water connection. Potholing will also be conducted at the sites prior to construction to locate and identify any underground structures.

Project Construction

For above-ground well infrastructure includes the installation of well pumps, Baski valves, chemical metering pumps, a 2-inch diameter sewer pipe, a 12-inch diameter water pipe, a 16-inch (or greater) diameter stormwater pipe, and two 500-gallon hypochlorite tanks. Earthwork will include utility and electrical piping, finish grading, and foundation work. Mechanical and electrical work consists of installation of potable water pipe, building a sanitary drain, storm water connection, chemical piping and pumps, well pump, valves, HVAC (if needed), building lighting, electrical/PLC panels, electrical grounding, and instrumentation.

Performance Testing and Demobilization

Performance testing including well start-up and operation will be performed after completion of construction. Operations and maintenance (O&M) manuals will be developed for reference and distribution to operators and City of Roseville staff.

The total estimated budget for Construction/Implementation is \$3,089,500 (Required Cost Share: \$600,000, Grant Share: \$1,976,397; Additional Cost Share: \$513,103).

Environmental Compliance/Mitigation/Enhancement

The stormwater BMPs identified in the SWPPP will be implemented, as well as any mitigation measures recommended in the City of Roseville ASR Final EIR (to be completed). Implementation of the approved Project Monitoring Plan (PMP) will be conducted as part of this task.

The total estimated budget for this task is \$74,640 (Required Cost Share: \$0, Grant Share: \$0; Additional Cost Share: \$74,640).

Construction Administration

City of Roseville staff will perform construction management services during construction and inspections during construction. Some of these specific work items include review of contractor's schedule and make recommendations; manage and coordinate all contractor correspondence; maintain detailed project records; and perform field construction inspections.

The total estimated budget for this task is \$642,500 (Required Cost Share: \$0, Grant Share: \$0; Additional Cost Share: \$642,500).

Other

A Project Monitoring Plan will be prepared as permits described above are obtained.

The total estimated budget for this task is \$4,643 (\$525 PMP; \$4,118 permits (Required Cost Share: \$0, Grant Share: \$0; Additional Cost Share: \$4,643)).

Construction/Implementation Contingency

Contingency is estimated at 5% of the construction/implementation budget. The limited contingency reflects that the below-ground portion of the project has already been completed and past experience with this type of project.

The total estimated budget for this task is \$154,475 (Required Cost Share: \$0, Grant Share: \$0; Additional Cost Share: \$154,475).

PROJECT 2: SECRET RAVINE FISH PASSAGE IMPROVEMENT PROJECT

Project Description

This project restores natural channel and floodplain function and increases channel capacity by removing a bridge and pipelines, recontouring stream banks, and adding logs and boulder structures that mimic nature. The barrier removal will provide access to approximately 10 miles of potential spawning and rearing habitat upstream of the project site.

The total estimated budget for this project is \$366,551 (Required Cost Share: \$0; Grant Share: \$311,051; Additional Cost Share: \$55,500).

Direct Project Administration

The project has two implementing agencies: the City of Roseville (City) and the Dry Creek Conservancy. The City will be the responsible agency for purposes of compliance with grant funding terms. The City and the Dry Creek Conservancy will enter into a Memorandum of Understanding (MOU) delineating the number of hours and costs associated with the Dry Creek Conservancy time spent on this project, billing procedures and the payment mechanism. Labor compliance will be implemented under an approved LCP. Quarterly reports will be prepared assessing the progress and accomplishments of the Secret Ravine Fish Passage Improvement Project. A project completion report will also be prepared at the end of the project, and annual reports will be prepared.

The total estimated budget for this task is \$15,204 (Required Cost Share: \$0; Grant Share: \$12,204; Additional Cost Share: \$3,000).

Land Purchase/Easement

Land for this project is already owned by the City of Roseville. It was deeded to the City through Development Agreements Fee Title. The project area is part of the City's open space.

Planning/Design/Engineering/Environmental Documentation

Planning documents have been prepared to demonstrate the viability of the project and 90% design of the project has been completed. The project design meets the guidelines and standards included in the *California Salmonid Stream Habitat Restoration Manual Part XII* (Michael Love & Kozmo Bates, April 2009). The project is exempt from CEQA review under the provisions of Class 33 Categorical Exemptions as described in Section 15333 of the CEQA guidelines, which states: "Class 33 consists of projects not to exceed five acres in size to assure the maintenance, restoration, enhancement, or protection of habitat for fish, plants or wildlife provided that there are no significant adverse impacts on endangered, rare or threatened species or their habitat pursuant to section 15065...." The following additional permits will be obtained prior to implementation of the project, as follows: City of Roseville Grading Permit and City of Roseville Flood Encroachment Permit. A project bid package will be prepared and a contractor will be secured through a competitive selection process.

The total estimated budget for this task is \$68,072 (Required Cost Share: \$0; Grant Share: \$40,572; Additional Cost Share: \$27,500).

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Mobilization and site preparation includes clearing a path to the work area, creating a temporary staging area, and mobilizing large construction equipment, including an excavator, two dump trucks, and a backhoe, to the site. The City of Roseville will demolish existing structures, including bridges abutments, concrete aprons and abandoned utility pipes, and excavation of concrete aprons according to the final design. Demolition debris will be disposed of per local, state and federal requirements.

Project Construction

The contractor will be responsible for installing the stormwater BMPs, the dewatering system, and perform fish relocation. Following demolition, the contractor will restore the stream bed and banks. The contractor will re-grade the channel bed and banks, place large woody debris and rocks in the channel, and install erosion protection. Final steps will include removing the dewatering system and fish blocknets and re-vegetating stream banks, followed by public pathway improvements and interpretive signage.

Performance Testing and Demobilization

Under this work item, the contractor will perform site clean-up and stabilization. This includes final inspection and project certification, and contractor demobilization. A letter of approval, signed by the Design consultant and the biologist, stating that the work was performed to their satisfaction will also be prepared.

The total estimated budget for the Construction/Implementation task is \$209,900 (Required Cost Share: \$0; Grant Share: \$184,900; Additional Cost Share: \$25,000).

Environmental Compliance/Mitigation/Enhancement

The City applied for and was granted a Notice of Exemption (NOE) under CEQA Code 15333-Small Restoration Projects. The primary environmental mitigation action required is restoration of the stream bed and re-vegetation of the stream banks.

As part of this task, stormwater BMPs will be implemented and managed. In addition, monitoring required as part of implementation of the Project Monitoring Plan will also be implemented under this task.

The total estimated budget for this task is \$36,223 (Required Cost Share: \$0; Grant Share: \$36,223; Additional Cost Share: \$0).

Construction Administration

Construction administration and management will be divided into two components; first, oversight of the demolition of the existing structures will be conducted by the City of Roseville staff; and second, oversight of restoration of the stream bed and banks will be performed by a contractor. Field inspection will be required to inspect structure stability, channel morphology and in-stream habitat.

The total estimated budget for this task is \$35,527 (Required Cost Share: \$0; Grant Share: \$35,527; Additional Cost Share: \$0).

Other

This budget item includes liability insurance costs for Dry Creek Conservancy required for this project. A Project Monitoring Plan will be prepared under this task.

The total estimated budget for this task is \$1,625 (\$525 PMP; \$1,100 liability coverage (Required Cost Share: \$0; Grant Share: \$1,625; Additional Cost Share: \$0)).

Construction/Implementation Contingency

No construction/implementation contingency is assumed for this project.

PROJECT 3: E.A. FAIRBAIRN GROUNDWATER WELL PROJECT

Project Description

This project will construct a groundwater well with an estimated capacity of 1,400 gallons per minute at the Fairbairn Water Treatment Plant and implement conjunctive use operations. The well will provide up to 2,250 AF per year in dry years.

The total estimated budget for this project is \$1,578,454 (Required Cost Share: \$100,000; Grant Share: \$988,198; Additional Cost Share: \$490,256).

Direct Project Administration

Administration includes council communications, budget adjustments, project status meetings, and communication with RWA and contractors. Labor compliance will be implemented under an approved LCP. A project completion report will also be prepared at the end of the project, as well as, annual reports.

The total estimated budget for this task is \$9,760 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$9,760).

Planning/Design/Engineering/Environmental Documentation

Design has not yet started on the proposed project. American Water Works Association (AWWA) standards (including AWWA A-100-06, AWWA Manual No. M21) and California Water Well Standards will be followed along with any other applicable project design and material standards. City staff will prepare a MND for the project in order to comply with CEQA. As part of the MND, a list of mitigation measures to be implemented during construction will be identified and a monitoring plan will be developed. The City will acquire a National Pollutant Discharge Elimination System (NPDES) General Stormwater Permit and a Sacramento County Well Construction Permit. Construction contracting will be completed by the City and consists of the following: Bid advertisement; Pre-bid contractors meeting; Bid opening; Bid evaluation; Award of Contract; NTP.

The total estimated budget for this task is \$276,000 (Required Cost Share: \$100,000; Grant Share: \$0; Additional Cost Share: \$176,000). Direct expenses for permits are included under the "Other" category below.

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Includes an onsite meeting with the construction contractor, and equipment mobilization to the project location. The Stormwater BMPs identified in the SWPPP will also be implemented during this stage of construction.

Project Construction

The groundwater well will be drilled to a depth of approximately 350 feet below the ground surface (bgs). Up to a 28-inch diameter borehole will be drilled. The well will be constructed in the borehole following completion with screened intervals to be determined based on field data. During construction, the casing and screen will be centered in the borehole while an engineered filter pack is placed between the screen and the borehole wall. A cement sanitary seal will be placed above the filter pack as part of the well construction. Following well completion, the pump, motor and above-ground facilities will be installed. The contractor will install piping to the potable water system, sewer system, and stormwater system, as well as construct ancillary facilities, including a control building.

Performance Testing and Demobilization

This will include start-up and operation testing of the well and demobilization from the site by the contractor.

The total estimated budget for this task is \$1,000,000 (Required Cost Share: \$0; Grant Share: \$988,198; Additional Cost Share: \$11,802).

Environmental Compliance/Mitigation/Enhancement

The contractor will implement the Stormwater BMPs throughout project construction, as well as any other mitigation measure identified in the MND. Implementation of the approved Project Monitoring Plan will be conducted under this task.

The total estimated budget for this task is \$10,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$10,000).

Construction Administration

The City of Sacramento Department of Utilities Construction Management Section will provide project inspection during construction and perform all other construction management support. Construction Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$81,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$81,000).

Other

A Project Monitoring Plan will be prepared and permits described above will be obtained.

The total estimated budget for this task is \$1,694 (\$525 PMP; \$1,169 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$1,694)).

Construction/Implementation Contingency

A construction/implementation contingency of 20% of construction costs has been included because the project is in a fairly preliminary stage and unknown conditions may arise.

The total estimated budget for this task is \$200,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$200,000).

PROJECT 4: SHASTA PARK RESERVOIR AND WELL PROJECT

Project Description

This project includes constructing a groundwater well with an estimated capacity of 1,500 gallons per minute, a four million gallon reservoir, and booster pump station, which will increase the City of Sacramento's (City) conjunctive use capacity in south Sacramento. The well will provide up to 2,250 AF per year in dry years. The facility will also address chronic low pressure and fire flow concerns to a disadvantaged part of the City.

The total estimated budget for this project is \$14,082,458 (Required Cost Share: \$5,400,000; Grant Share: \$988,199; Additional Cost Share: \$7,694,259).

Direct Project Administration

Administration includes council communications, budget adjustments, project status meetings, and communication with RWA and contractors. The City has a Department of Industrial Relations (DIR) certified LCP in place. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the Shasta Park Reservoir and Well Project. A completion report will be prepared at the end of the project, as well as, annual reporting

The total estimated budget for this task is \$20,320 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$20,320).

Land Purchase/Easement

The City's has completed the purchase of 5.31 acres of real estate to support this project from the Sacramento Housing and Redevelopment Agency.

The total cost for this task was \$580,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$580,000).

Planning/Design/Engineering/Environmental Documentation

The criteria for evaluating the site included hydraulics, constructability, land acquisition cost, regulatory approval, facility cost, extent of disruption to existing customers, and compatibility for the proposed uses. No other planning documents are required prior to design of this project. For this project, AWWA standards (including AWWA A-100-06, AWWA Manual No. M21) and California Water Well Standards will be followed along with any other applicable project design and material standards. City staff have prepared a MND for the project to comply with CEQA. As part of the MND, a list of mitigation measures to be implemented during construction have been identified and a monitoring plan has been developed as part of the Mitigation, Monitoring and Reporting Program. The following permits will be needed for this project and will be obtained prior to the start of construction: NPDES General Stormwater Permit for Construction; Sacramento County Well Construction Permit; Sacramento County Encroachment Permit. The CDPH will need to approve the use of the wells and reservoir for public water supply; therefore, after construction is complete, the City will file a Public Water Supply Amendment. The certification from CDPH is ministerial and is not included in the budget or schedule in this project. Construction contracting will be completed by the City of Sacramento and consists of the following: Bid advertisement; Pre-bid contractors meeting; Bid opening; Bid evaluation; Award of Contract; NTP.

The total estimated budget for this task is \$1,313,523 (Required Cost Share: \$400,000; Grant Share: \$0; Additional Cost Share: \$913,523). Direct expenses for permits described above are included under the "Other" category below.

Construction/Implementation

Construction for the groundwater well and reservoir will be constructed sequentially. Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Includes an onsite meeting with the construction contractor, and equipment mobilization to the project location. The Stormwater BMPs identified in the SWPPP (to be prepared by the contractor) will be installed during this stage of construction.

Project Construction

The four million gallon reservoir is expected to be constructed of concrete, and will include up to 850 lineal feet each of transmission and drainage piping, an exterior security wall of approximately 1,100 lineal feet, electrical, meters, landscaping, control building, and up to four reservoir booster pumps. The groundwater well will be drilled to a depth of approximately 1200 feet below ground surface (bgs). A 30-inch diameter borehole will be drilled. The well will be constructed in the borehole following completion with screened intervals to be determined based on field data. Following well completion, the pump, motor and above-ground facilities will be installed. The contractor will install piping to the potable water system, sewer system, and stormwater system, as well as construct ancillary facilities, including meter, treatment systems, chemical systems, electrical, and a control building.

Performance Testing and Demobilization

This will include start-up and operation testing of the well and demobilization from the site by the contractor.

The total estimated budget for this task is \$9,835,610 (Required Cost Share: \$5,000,000; Grant Share: \$988,199; Additional Cost Share: \$3,847,411).

Environmental Compliance/Mitigation/Enhancement

The contractor will implement the Stormwater BMPs throughout project construction, as well as any other mitigation measures identified in the MND. The proposed project site is located on land occupied by the Swainson's Hawk (a sensitive species) and other environmental documents suggest that mitigation for the lost habitat may be required on a 1:1 basis. Finally, implementation of the approved Project Monitoring Plan will be conducted as part of this task.

The total estimated budget for this task is \$90,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$90,000).

Construction Administration

The City of Sacramento Department of Utilities Construction Management Section will provide project inspection during construction and perform all other construction management support. Construction

Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$470,800 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$470,800).

Other

This task includes preparing the Project Monitoring Plan and direct permit expenses.

The total estimated budget for this task is \$2,723 (\$525 PMP; \$2,198 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$2,723)).

Construction/Implementation Contingency

A construction/implementation contingency of 20% has been included because the project is in a fairly preliminary stage and there may be unknown conditions.

The total estimated budget for this task is \$1,769,482 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$1,769,482).

PROJECT 5: ANTELOPE CREEK INTEGRATED FLOOD CONTROL PROJECT

Project Description

This is a multi-objective water efficiency and regional flood control improvement project proposed within the Dry Creek Watershed area of the American River Basin. This project includes the first phase of a two-phase project. The first phase would include the concrete gunite lining and other improvements of the Antelope Creek/Canal and its tributaries and the construction of one (in a future series of two) on-channel flood control weirs on Antelope Creek. The project will conserve up to 125 AF per year, reduce the amount of erosion in the watershed, improve water quality and reduce peak flow from a 100-year storm event by 530 cubic feet second on Antelope Creek near Atlantic Street in the City of Roseville. For grant management purposes, the project has been split into two project elements (Antelope Creek Integrated Flood Control Project and Antelope Creek Integrated Water Efficiency Project). The flood control portion of the project sponsored by Placer County Flood Control and Water Conservation District is described below.

The total estimated budget for this project is \$1,519,699 (Required Cost Share: \$100,000; Grant Share: \$741,149; Additional Cost Share: \$678,550).

Direct Project Administration

Administration includes Board communications, budget adjustments, project status meetings, and communication with RWA and contractors and communication between the two participating agencies, Placer County Water Agency (PCWA) and Placer County Flood Control and Water Conservation District (PCFCWCD). Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the project. A completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$25,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$25,000).

Land Purchase/Easement

The City of Roseville owns and maintains the current open space zoned property over which the flood control portion of Phase 1 of the project is proposed, so there are no assumed costs for this task.

Planning/Design/Engineering/Environmental Documentation

Planning documents have been prepared to demonstrate the viability of the project. At this time, the project has completed the conceptual (10%) design stage. During design, AWWA and American Society for Testing and Materials (ASTM) Construction Standards and OSHA regulations and industry standard practice will be used as construction standards and health and safety standards. The following permits will be required to implement the project: Department of Fish and Game 1600 Streambed Alteration Agreement allowing for work within the stream channel; U.S. Army Corps of Engineers Section 404 Encroachment Permit; RWQCB Section 401 Permit for water quality certification; Central Valley Flood Protection Board (CVFPB) Encroachment Permit; City of Roseville Grading and Encroachment Permit; City of Roseville Tree Mitigation Permit. In addition to the above mentioned permits, the contractor will file and comply with a SWPPP, which will be submitted to the

City of Roseville and Placer County. A project bid package will be prepared and a contractor will be secured through a competitive selection process.

The total estimated budget for this task is \$370,000 (Required Cost Share: \$100,000; Grant Share: \$50,000; Additional Cost Share: \$220,000).

Construction/Implementation

Construction of the Antelope Creek Integrated Flood Control Project will be conducted over two construction seasons due to the increase in flows during the winter months. Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Upon receipt of the NTP, the contractor will begin mobilization and site preparation activities. These activities will include selective clearing and grubbing of debris and invasive species within the floodplain construction areas; instituting tree protection measures; and following all prescribed SWPPP measures.

Project Construction

Following completion of site preparation activities, the contractor will perform project construction activities. This includes general site grading, excavating and hauling for weir construction, floodplain restoration, forming and pouring the concrete flood control weir, installation of the ALERT stream level gauges, re-landscaping, installing a temporary irrigation system, and installing interpretive signs.

Performance Testing and Demobilization

During completion of construction activities, the contractor will perform required materials testing and monitoring. This includes geotechnical testing of flood control weir base materials, earthwork compaction testing, concrete materials testing and plant establishment and monitoring. Following construction site cleanup activities, PCFCWCD will begin the three-year plant establishment monitoring period and begin monitoring the stream level gauges to determine storage and peak flow reduction results. Final inspection and project certification will also be performed, along with contractor demobilization.

The total estimated budget for this task is \$711,149 (Required Cost Share: \$0; Grant Share: \$691,149; Additional Cost Share: \$20,000).

Environmental Compliance/Mitigation/Enhancement

A project-specific Project Monitoring Plan will be prepared for this project to direct longer-term project monitoring to ensure successfully project implementation and operation.

The total estimated budget for this task is \$177,215 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$177,215).

Construction Administration

Construction Administration includes Construction Management services and other administrative activities relating to project implementation. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$121,138 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$121,138).

Other

This task includes preparing the Project Monitoring Plan and payment for the permits described above.

The total estimated budget for this task is \$8,525 (\$525 PMP; \$8,000 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$8,525)).

Construction/Implementation Contingency

A construction/implementation contingency of 15% will be used for this project, which is based on previous projects and the state of the current project.

The total estimated budget for this task is \$106,672 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$106,672).

PROJECT 6: REGIONAL WATER METER RETROFIT ACCELERATION PROJECT

Project Description

The Regional Water Meter Retrofit Acceleration Project will install 840 additional residential meters in the service areas of the City of Sacramento, Sacramento Suburban Water District, and Sacramento County Water Agency. The meters will conserve an estimated 126 AF per year.

The total estimated budget for this project is \$959,545 (Required Cost Share: \$0; Grant Share: \$913,095; Additional Cost Share: \$46,450).

Direct Project Administration

Administration includes Board and Council communications with the respective agencies, budget adjustments, project status meetings, and communication with RWA and contractors. This project is being administered by RWA; however, the meters will be installed in the City of Sacramento, Sacramento Suburban Water District, and Sacramento County Water Agency service areas. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the Regional Water Meter Retrofit Acceleration Project. A project completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$17,340 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$17,340).

Land Purchase/Easement

This is not required for this project.

Planning/Design/Engineering/Environmental Documentation

Each agency has an ongoing meter installation program, so minimal preparation of final design and specifications would be needed to commence the project. All installed residential water meters will comply with design and accuracy specifications of the AWWA and shall be NSF-approved lead free. The meters will be connected to residential water services in accordance with the Uniform Plumbing Code (UPC). For the Regional Water Meter Retrofit Acceleration Project, a Categorical Exemption will be filed as the project will not have any significant impacts on the environment. For this project, a Sacramento County Encroachment Permit must be acquired to be allowed to work in County easements. These permits are issued on an annual basis for agency operations and maintenance. For the water meters located in the City of Sacramento, no permits will be required.

The total estimated budget for this task is \$6,480 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$6,480).

Construction/Implementation

The Regional Water Meter Retrofit Acceleration Project participants (namely the City of Sacramento, Sacramento Suburban Water District and the Sacramento County Water Agency) select contractors through a competitive process on a fiscal year basis for implementation of similar types of work; therefore, these agencies will modify the existing contracts to incorporate the Regional Water Meter Retrofit Acceleration Project as part of the overall contract scope. Construction is divided into three

categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

The contractors will mobilize their equipment and crew to their respective, designated staging areas. Some of the equipment that will be required for implementation of the Regional Water Meter Retrofit Acceleration Project include: a backhoe, low bed, and crew truck; this equipment will be brought to the site during this subtask.

Project Construction

During project construction, the 840 residential water meters will be installed. The contractors will perform the installations within OSHA and any other applicable codes, regulations, and ordinances during construction.

Performance Testing and Demobilization

Representatives of the participating agencies will perform post-construction inspections to verify proper meter installation. Additionally, as part of this work item, demobilization and site restoration (as required) by the contractor will be completed.

The total estimated budget for this task is \$924,000 (Required Cost Share: \$0; Grant Share: \$913,095; Additional Cost Share: \$10,905).

Environmental Compliance/Mitigation/Enhancement

A Categorical Exemption will be filled for this project, so no mitigation measures will be required. Contractors will prepare erosion, sediment and pollution control plans to protect water quality during construction. Implementation of an approved Project Monitoring Plan will occur under this task.

The total estimated budget for this task is \$3,600 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$3,600).

Construction Administration

Construction Administration includes Construction Management services. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$7,200 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$7,200).

Other

This task includes preparing the Project Monitoring Plan and securing of permits identified above.

The total estimated budget for this task is \$925 (\$525 PMP; \$400 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$925)).

Construction/Implementation Contingency

A construction/implementation contingency will not be applied to this project as the installation of water meters is not a complex construction activity and the participants have significant prior experience in meter retrofits and will assume any additional costs.

PROJECT 7: REGIONAL INDOOR AND OUTDOOR WATER EFFICIENCY PROJECT

Project Description

The Regional Indoor and Outdoor Water Efficiency Project consists of four components that will conserve an estimated 9,615 AF over the life of the programs. The four programs are: (1) no-cost interior water efficiency fixture retrofits, primarily targeted (goal of 75%) at disadvantaged communities; (2) exterior single family water use surveys and upgrades; (3) exterior water use surveys and upgrades for large landscapes, including commercial, industrial and institutional (CII) and residential agriculture landscapes; and (4) the preparation of water use budgets for accounts with dedicated landscape meters. The estimated average annual conservation from the project is 480 AF per year.

The total estimated budget for this project is \$1,004,439 (Required Cost Share: \$0; Grant Share: \$988,198; Additional Cost Share: \$16,241).

Direct Project Administration

Administration includes general communications, budget adjustments, project status meetings, and communication with contractors, local agency staff and internal communication at RWA. If labor compliance is required, it will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the Regional Indoor and Outdoor Water Efficiency Project. A project completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$33,499 (Required Cost Share: \$0; Grant Share: \$17,558; Additional Cost Share: \$15,941).

Land Purchase/Easement

This is not required for this project.

Planning/Design/Engineering/Environmental Documentation

The project is designed to reduce water use as a means towards compliance with California law requiring a 20% water reduction in per capita water use Statewide by the year 2020. The majority of the planning documents required for implementation have been prepared by local agency and RWA staff. These documents demonstrate the efficacy of the proposed conservation measures and were developed based on guidance documents prepared by DWR and the California Urban Water Conservation Council (CUWCC). This project will follow all design and material standards documented in the CUWCC MOU as well as any other applicable standards. No permits are required for this project.

The total estimated budget for this task is \$3,360 (Required Cost Share: \$0; Grant Share: \$3,360; Additional Cost Share: \$0), which will be fully funded by the grant.

Construction/Implementation

Implementation will consist of the following four primary elements:

- **Interior Conservation Retrofits** - This effort will provide a complete interior water conservation retrofit for up to 1,098 households in the Greater Sacramento Area, with a goal of 75% (or 825) of the retrofits targeted at disadvantaged customers. The retrofit will include a standard survey of interior water use; direct, no-cost installation of indoor water efficiency devices including toilets, showerheads, and faucet aerators and hose-end shut-off valves will be provided for exterior hose bibs.
- **Exterior Residential Water Use Surveys and Upgrades** - For single-family accounts, provide up to 285 exterior water use surveys (landscape audits) and up to \$500 for each completed survey in irrigation system upgrades.
- **Exterior Large Landscape Water Use Surveys and Upgrades** - For large landscapes, including CII and residential agriculture accounts with mixed-use meters, provide up to three workshops on water efficiency for large landscape customers throughout the region and up to 76 exterior water surveys, which include up to \$1,500 for each completed survey in irrigation system upgrades.
- **Landscape Water Budgets** - Prepare up to 404 landscape water budgets for dedicated landscape irrigation meters in accordance with the state's current Model Water Efficient Landscape Ordinance.

The total estimated budget for this task is \$884,500 (Required Cost Share: \$0; Grant Share: \$884,500; Additional Cost Share: \$0).

Environmental Compliance/Mitigation/Enhancement

No environmental compliance, mitigation, or enhancement will be required for this project. This task will include implementation of an approved Project Monitoring Plan.

The total estimated budget for this task is \$2,300 (Required Cost Share: \$0; Grant Share: \$2,300; Additional Cost Share: \$0).

Construction/Implementation Administration

Implementation administration includes will include the following items: Review contractor's schedule and make recommendations; manage and coordinate all project inquiries, serve as focal point; manage and coordinate all contractor correspondence; maintain detailed project records; receive, log, and distribute all submittals for review; coordinate inspection of completed items with local agencies; recommend final payment and submit all project files for archiving.

The total estimated budget for this task is \$80,480 (Required Cost Share: \$0; Grant Share: \$80,480; Additional Cost Share: \$0).

Other

This task includes preparing the final Project Monitoring Plan.

The total estimated budget for this task is \$300 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$300).

Construction/Implementation Contingency

An implementation contingency will not be applied to this project as the installation of water efficiency measures is not a complex construction activity.

PROJECT 8: SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT / SACRAMENTO POWER AUTHORITY RECYCLED WATER PROJECT

Project Description

This Project consists of the construction of recycled water pipeline facilities at the Sacramento Regional County Sanitation District (SRCSD) Sacramento Regional Wastewater Treatment Plant (SRWTP), transmission pipelines outside of the SRWTP, and piping modifications at the SPA Cogeneration Facility to convey recycled water from the SRWTP to replace approximately 1,000 AF per year of potable water currently being used for cooling purposes.

The total estimated budget for this project is \$9,165,994 (Required Cost Share: \$2,700,000; Grant Share: \$1,547,519; Additional Cost Share: \$4,918,475).

Direct Project Administration

Administration includes internal communications, budget adjustments, project status meetings, and communication and coordination with RWA and contractors. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the SRCSD/Sacramento Power Authority (SPA) Recycled Water Project. A project completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$133,805 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$133,805).

Land Purchase/Easement

The SRWTP property has been owned by SRCSD since the 1970s and the SPA owns the Cogeneration Plant property, but other land easement acquisitions may be required in order to implement this project. The pipeline alignment between the northern property boundary of the SRWTP and the southern terminus point of 24th Street, referred to as Delta Shores, does not appear to have existing right-of-way and it is anticipated that easements would need to be secured in this area. Also, it may be necessary to acquire easements/right-of-ways and temporary construction easements along sections of the alignment along 24th Street and 47th Avenue in order to facilitate the construction and maintenance of the pipeline and related appurtenances. Since the existing lands within Delta Shores are undisturbed lands, installation of the recycled water transmission main is expected to be faster and cheaper compared to the other sections of pipeline. Based on prior experiences with similar projects, 5% of project construction costs is assumed for the cost of project easements.

The total estimated budget for this task is \$310,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$310,000).

Planning/Design/Engineering/Environmental Documentation

SRCSD will solicit for engineering services to complete design for the SRCSD/SPA Recycled Water Project. A Negative Declaration will be drafted for the pipeline proposed in this project. Four permits must be acquired prior to project implementation. The SRCSD Treated Wastewater Change Petition

WW-28, was completed in July 1996, providing approval under Section 1211 and 1700 of the California Water Code to change the place of use and purpose of use of treated wastewater. Potential amendments to California Energy Commission (CEC) License and Title 5 Air Permit, may be required to operate the SPA Cogeneration Plant. Encroachment permits from local jurisdictions/agencies allowing for the construction of utilities in public right-of-ways. A Department of Fish and Game Section 1600 Streambed Alteration Agreement to cross Laguna Creek at the SRWTP property. This permit may not be required should SRCSD construct the crossing under Laguna Creek using tunneling methods to avoid mitigation impacts and accelerate the acquisition of permits. If required, a U.S. Army Corps of Engineers Section 404 Encroachment Permit as well as a RWQCB Section 401 Permit for water quality certification will also be acquired. SRCSD will release a Notice to Contractors for the SRCSD/SPA Recycled Water Project. After review of the bids, SRCSD will select a bid and provide the NTP to the selected contractor. A SWPPP will be developed and provided by the Contractor.

The total estimated budget for this task is \$1,295,498 (Required Cost Share: \$700,000; Grant Share: \$0; Additional Cost Share: \$595,498).

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Mobilization and site preparation includes clearing a path to the work area, creating a temporary staging area, mobilizing large construction equipment to the site and storm drain inlet protection. Pre-construction surveys and soil borings along the pipeline will be performed and will identify existing utilities, rights-of-way, environmentally sensitive areas and above ground and underground road conditions. Mitigation measures such as the BMPs identified in the SWPPP will also be set-up under this subtask.

Project Construction

Project construction consists of the installation of the pipeline and all other appurtenances and improvements and modifications to the treatment and piping system at the water recycling facility and to the cogeneration plant piping system. This includes trench construction and stabilization, traffic control, pipe installation, backfill and compaction of the trench. The pipeline will consist of approximately 6.3 miles of 12-inch diameter recycled water pipeline.

Performance Testing and Demobilization

After completion of construction, the pipeline and modifications to the water recycling facility and cogeneration plant will be tested. Once completed, the construction site will be cleaned and fencing installed to protect the pipeline. The pipeline and modifications will then be inspected to ensure compliance with all applicable standards and regulations.

The total estimated budget for this task is \$5,575,200 (Required Cost Share: \$2,000,000; Grant Share: \$1,547,519; Additional Cost Share: \$2,027,681).

Environmental Compliance/Mitigation/Enhancement

The SWPPP and permit compliance measures will be implemented. Construction of the pipeline segments along specific areas of the SRWTP property will avoid seasonal nesting areas. Monitoring

required as part of implementation of the Project Monitoring Plan will be implemented and includes implementation of the required performance monitoring, data assessment, and reporting.

The total estimated budget for this task is \$66,902 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$66,902).

Construction Administration

Construction Administration includes Construction Management services. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$669,024 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$669,024).

Other

This task includes preparing the final Project Monitoring Plan.

The total estimated budget for this task is \$525 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$525).

Construction/Implementation Contingency

A construction/implementation contingency of 20% has been included and is detailed in the associated budget. The contingency percentage is based on SRCSD's prior experience and typical industry standards for this stage of a project.

The total estimated budget for this task is \$1,115,040 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$1,115,040).

PROJECT 9: NORTH ANTELOPE BOOSTER PUMP STATION PROJECT

Project Description

This project will construct a booster pump with a capacity of 4,200 gallons per minute to provide for the reversal of flow in the Antelope and Cooperative Transmission pipeline. This will increase the operational flexibility within the system and create additional opportunities for conjunctive use practices in the region.

The total estimated budget for this project is \$918,412 (Required Cost Share: \$200,000; Grant Share: \$261,873; Additional Cost Share: \$456,539).

Project Administration

Administration includes Board communications, budget adjustments, project status meetings, and communication with RWA and contractors. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared, a project completion report will be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$34,844 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$34,844).

Land Purchase/Easement

The land for the proposed project is currently owned by SSWD.

Planning/Design/Engineering/Environmental Documentation

Feasibility of the project will require an inter-agency agreement among the project beneficiaries. The conceptual (10%) design for this project has been completed. The final design report for the booster pump station will be completed along with a bid package for the project. For this project, AWWA standards (including AWWA A-100-06, AWWA Manual No. M21) and SSWD Standard Details and Specifications will be followed along with any other applicable project design and material standards. SSWD anticipates filing a Negative Declaration for CEQA compliance. The following permits will be required for the completion of the project and will be obtained before construction begins: CDPH Permit Amendment; Public Water Supply Amendment; and County of Sacramento Electrical Permit. Following completion of final design, a bid package will be released and the contractor will be selected based on a competitive selection process.

The total estimated budget for this task is \$167,742 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$167,742). Direct expenses for permits are included under the "Other" category below.

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Mobilization and site preparation includes an onsite meeting with the construction contractor, and equipment mobilization to the project location. Based on the final pump station layout and

requirements for maintenance access to the existing pressure reducing valve (PRV) station equipment, the existing access gate may need to be relocated. If so, the gate will be moved during this phase of construction. On-site safety equipment will be installed at this stage. The Stormwater BMPs identified in the SWPPP (to be prepared by the contractor) will also be installed during this stage of construction.

Project Construction

Prior to installation of the pump station facilities, the site will be excavated in accordance with the final plans and specifications. Construction of the pump station includes construction and installation of piping and appurtenances, two magnetic flow meters and two 50 horsepower centrifugal pumps. A motor control center with a transformer, controls and instrumentation will also be installed during this phase.

Performance Testing and Demobilization

Following construction of the pump station, start-up and control testing will be performed. Testing will include meter flow testing and calibration, motorized valve control testing and calibration, and pump flow rate testing. Finally, general site cleanup and demobilization will be performed and final project certification will be performed.

The total estimated budget for this task is \$527,800 (Required Cost Share: \$200,000; Grant Share: \$261,873; Additional Cost Share: \$65,927).

Environmental Compliance/Mitigation/Enhancement

SSWD has not begun environmental documentation; however, SSWD anticipates filing a Negative Declaration. A SWPPP will be prepared and implemented as part of project construction and only standard stormwater BMPs are expected to be required. Implementation of an approved Project Monitoring Plan will be implemented under this task.

The total estimated budget for this task is \$9,600 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$9,600).

Construction Administration

Construction Administration includes Construction Management services. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$65,476 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$65,476).

Other

This task includes preparing the final Project Monitoring Plan and direct permit expenses.

The total estimated budget for this task is \$7,390 (\$525 PMP; \$6,865 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$7,390)).

Construction/Implementation Contingency

A construction/implementation contingency of 20% will be used for the project. This percentage was based on prior experience with similar projects at this stage of design.

The total estimated budget for this task is \$105,560 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$105,560).

PROJECT 10: COYLE AVENUE AND ROSEVIEW PARK PUMP STATIONS AND TREATMENT SYSTEMS PROJECT

Project Description

The project will construct two 1,200-square foot pump stations and two new production wells with estimated capacities of 1,800 gpm and 1,400 gpm in Sacramento Suburban Water District's (SSWD) north service area. When operated as part of a conjunctive use program, the wells are expected to yield an average annual supply of 2,000 AF.

The total estimated budget for this project is \$5,706,162 (Required Cost Share: \$1,800,000; Grant Share: \$1,482,298; Additional Cost Share: \$2,423,864).

Direct Project Administration

Administration includes council communications, budget adjustments, project status meetings, and communication with RWA and contractors. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the Coyle Avenue and Roseview Park Pump Stations and Treatment Systems Project. A project completion report will be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$59,295 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$59,295).

Land Purchase/Easement

The Coyle well site is currently owned by SSWD. SSWD has submitted an offer letter to the Sunrise Recreation and Park District (SRPD) for the Roseview Park site. SRPD is currently finalizing the offer from SSWD. The purchase price for the Coyle Avenue site was \$36,500 and the estimated purchase price for the Roseview Park site is \$32,900.

The total estimated budget for this task is \$69,400 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$69,400).

Planning/Design/Engineering/Environmental Documentation

The design of the Coyle well has been completed; the pump station and treatment facility design is currently underway. For this project, AWWA standards (including AWWA A-100-06, AWWA Manual No. M21) and California Water Well Standards will be followed along with any other applicable project design and material standards. A Draft IS/ND has been prepared and was published for public comment. Per the Draft IS/ND, the proposed project will not cause any significant adverse environmental impacts. This is not expected to change with completion of the Final IS/ND. The following permits have been obtained for the Coyle Avenue and Roseview Park Pump Stations and Treatment Systems Project: County of Sacramento Well Construction Permit; and CDPH Permit Amendment. The following permits for each well will be required for the completion of the project and will be obtained before construction begins: County of Sacramento Sewer Permit; County of Sacramento Water Agency Permit; NPDES Permit Amendment; and Public Water Supply Amendment. Following completion of final design, a bid package will be released and the contractor will be selected based on a competitive selection process.

The total estimated budget for this task is \$420,750 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$420,750). Direct expenses for permits are included under the "Other" category below.

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Mobilization and site preparation includes an onsite meeting with the construction contractor, and equipment mobilization to the project location. The Stormwater BMPs identified in the SWPPP (to be prepared by the contractor) will also be installed during this stage of construction.

Project Construction

Construction of the wells includes the drilling operations, casing installation, filter pack placement, sanitary seal placement and wellhead completion. Detailed specifications and plans for the wells, found in the Wells Final Design Package, are included as an attachment to this work plan. Pump station and treatment system construction for the Coyle Avenue Site includes construction of the 1,200 square foot masonry pump station, installation of above-ground appurtenances such as flow meters, valves and instrumentation, and installation of approximately 200 linear feet of either 12-inch or 16-inch underground piping to convey water from the well to the SSWD distribution system. Additionally, 200 linear feet of 15- to 18-inch underground storm drain will be installed, connecting the well pump-to-waste piping to the existing Sacramento County-owned storm drain system. A motor control center with pad-mounted transformer, controls, instrumentation, lighting, heating, fencing, landscaping and irrigation facilities will also be installed during this phase. Pump station and treatment system construction for the Roseview Park Site is identical to that of the Coyle Avenue site with the following exceptions: 600 to 1,200 lineal feet of 18-inch underground storm drain will be required for connecting the well pump-to-waste piping to the Sacramento County-owned storm drain system and 600 lineal feet of 4-inch underground sewer line will be required to connect to the existing Sacramento County-owner sewer system. The wellhead treatment systems at both sites, constructed in the pump stations, will consist of a chlorination treatment for disinfection and possibly a manganese removal system. More details and specifications for the wellhead treatment system will be known once the wells have been constructed and additional water quality data have been gathered.

Performance Testing and Demobilization

Following construction of the wells, test well pumps and discharge piping will be installed in the new wells. The new wells will then be developed and water quality samples will be taken and analyzed. The pump volume and drawdown will be determined at each site and one final report summarizing all of the performance testing that occurred will be drafted. Performance testing for the pump stations and treatment systems will include pressure testing and pump testing with water quality samples collected during start-up to ensure the treatment system is effective. Finally, the CDPH will inspect the sites to ensure they meet all required codes.

The total estimated budget for this task is \$4,011,935 (Required Cost Share: \$1,800,000; Grant Share: \$1,482,298; Additional Cost Share: \$729,637).

Environmental Compliance/Mitigation/Enhancement

As previously mentioned, a Negative Declaration has been prepared for this project; therefore, no mitigation measures are anticipated. A SWPPP will be prepared and implemented at both sites as part of project construction; thus only standard Stormwater BMPs will be implemented through the construction period. Finally, implementation of the approved Project Monitoring Plan will also be conducted as part of this task.

The total estimated budget for this task is \$38,400 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$38,400).

Construction Administration

Construction Administration includes Construction Management tasks. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$267,440 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$267,440).

Other

This task includes preparing the Project Monitoring Plan and securing of permits described above.

The total estimated budget for this task is \$36,555 (\$525 PMP; \$36,030 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$36,555)).

Construction/Implementation Contingency

A construction/implementation contingency of 20% will be used for the Coyle Avenue and Roseview Park Pump Stations and Treatment Systems Project. This percentage was based on prior experience with similar projects at this stage of design.

The total estimated budget for this task is \$802,387 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$802,387).

PROJECT 11: WILLOW HILL PIPELINE REHABILITATION PROJECT

Project Description

This project will repair one of the highest water loss areas identified in the City of Folsom through a leak detection and repair program. Improvements will include lining and other repairs of the Willow Hill pipeline and lining of the Willow Hill Reservoir. This part of Folsom's system currently loses up to 1 million gallons per day or about 1,100 AF per year.

The total estimated budget for this project is \$7,606,671 (Required Cost Share: \$2,600,000; Grant Share: \$1,926,987; Additional Cost Share: \$3,079,684).

Direct Project Administration

Administration includes council communications, budget adjustments, project status meetings, and communication with RWA and contractors. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the Willow Hill Pipeline Rehabilitation Project. A project completion report will also be prepared at the end of construction, as well as, annual reporting.

The total estimated budget for this task is \$94,507 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$94,507).

Land Purchase/Easement

The City of Folsom owns both the infrastructure and the associated property within the project boundary.

Planning/Design/Engineering/Environmental Documentation

At this time, project planning has been completed and design has not yet started on the proposed project; however the City of Folsom anticipates that four design submittals will be prepared for the project. The 10% Design is will incorporate condition assessment work that will define the type of rehabilitation required for the various pipeline segments. Construction will occur during the low water demand period in the winter, therefore to meet that schedule, the City of Folsom will be releasing the advertising bid notice on less than 100% design and will provide the 100% design plan and specifications prior to accepting bids. During design, AWWA and ASTM Construction Standards, as well as City of Folsom Standard details and specifications will be followed along with any other applicable project design and material standards. This project is a rehabilitation project of existing infrastructure and will not result in any increase of capacity; therefore, this project is categorically exempt from environmental review under CEQA as noted in Title 14 - California Code of Regulations, Chapter 3 - Guidelines for Implementation of the California Environmental Quality Act, Article 19 - Categorical Exemptions, Section 15302 - Replacement or Reconstruction. The following permits are anticipated to be obtained for this project: An Amendment to the Public Water System Supply Permit issued to the City of Folsom is assumed to be required from the CDPH to incorporate the proposed repairs. As this project is a repair, the City of Folsom will work with the CDPH to determine if the amendment is necessary. An Amendment to the Waste Discharge Requirements for City of Folsom is expected to be required from the RWQCB due to discharges resulting from the repair work. As described above, the bid advertisement period for this period will be based on the 90% design. The 100% design will be distributed to contractors prior to accepting bids. Contract authorization by the

City Council will occur within two weeks of the bid opening. Work items include a pre-bid contractor's meeting, Bid Advertisement, Notice of Award (NOA)/NTP, and monthly progress reports.

The total estimated budget for this task is \$399,960 (Required Cost Share: \$250,000; Grant Share: \$0; Additional Cost Share: \$149,960). Direct expenses for permits are included under the "Other" category below.

Construction/Implementation

Details on the construction process are not currently available. Condition assessment work will define the type of lining/rehabilitation work (mortar lining, slip-lining, removing and replacing, etc.) required for the various lengths of the pipeline. Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Upon the NTP, the contractor will mobilize and prepare the site and staging area(s), and perform any necessary pre-construction surveys.

Project Construction

Following site preparation, the contractor will begin rehab/repair of the approximately 21,000 lineal foot Willow Hill Pipeline. This will also include rehab of up to 3,250 fittings, replacement of up to four flow meters, four control structures, and lining of an approximately 566,280 square-foot reservoir. As stated above, the type of repair (e.g. lining, replacement) will be determined during the condition assessment. During construction, the contractor will comply with all SWPPP requirements and any other monitoring and reporting requirements in the permits, as well as performing traffic control.

Performance Testing and Demobilization

After repair of the pipeline is complete, City of Folsom staff will perform inspections and testing of the rehabilitated pipeline according to manufacturer recommendations. In addition, the contractor will perform site clean-up and demobilize. Following final testing and startup (including leak testing as required), project certification will be performed.

The total estimated budget for this task is \$6,466,170 (Required Cost Share: \$2,350,000; Grant Share: \$1,926,987; Additional Cost Share: \$2,189,183).

Environmental Compliance/Mitigation/Enhancement

As previously mentioned, a Categorical Exemption is expected for this project; therefore, no mitigation measures are anticipated. This project will comply with any permit requirements and will follow the measures outlined in the SWPPP (if required for the project). Implementation of the approved Project Monitoring Plan will be performed under this task. Any benefits from the use of available water resulting from the water efficiency improvements will be addressed as a separate project.

The total estimated budget for this task is \$12,800 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$12,800).

Construction Administration

Construction Administration includes Construction Management services and other construction administration services. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$304,440 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$304,440).

Other

This task includes preparing the Project Monitoring Plan and permits described above will be obtained.

The total estimated budget for this task is \$5,485 (\$525 PMP; \$4,960 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$5,485)).

Construction/Implementation Contingency

A construction/implementation contingency of 5% will be used for the Willow Hill Pipeline Rehabilitation Project. The assumed contingency is less than other projects in the proposal due to the minimal open trenching expected as part of this project.

The total estimated budget for this task is \$323,309 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$323,309).

PROJECT 12: LOWER AMERICAN RIVER MILE 0.5 AQUATIC RIPARIAN HABITAT ENHANCEMENT PROJECT

Project Description

The project has been developed to increase the frequency of flooded habitat available for fish in the American and Sacramento Rivers during the spring and winter and to provide improved riparian habitat for birds and other wildlife species. These enhancements would be achieved by lowering and re-grading the over-steepened river bank at the 3.3 acre site and improving the quality of the upland habitat on the adjacent elevated floodplain.

The total estimated budget for this project is \$2,697,974 (Required Cost Share: \$200,000; Grant Share: \$1,408,183; Additional Cost Share: \$1,089,791).

Direct Project Administration

The project has three implementing agencies: Sacramento Area Flood Control Agency (SAFCA), County of Sacramento, and Water Forum. SAFCA is the project sponsor and will be responsible for implementing the project. The County of Sacramento is the property owner, and Water Forum is a stakeholder in the project. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the Lower American River Mile 0.5 Aquatic Riparian Enhancement Project. A project completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$31,916 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$31,916).

Land Purchase/Easement

The land for the proposed project includes property purchased prior to 1984 by Sacramento County, a partner in this project. The County has calculated a market value of \$22,000 per acre for the use of the American River Parkway for restoration by outside parties. This cost will either be waived or paid by SAFCA. For this project, the anticipated in-kind value for the use of the land is \$21,460.

The total estimated budget for this task is \$21,460. (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$21,460)

Planning/Design/Engineering/Environmental Documentation

Planning documents have been prepared to demonstrate the viability of the project. At this time the design of the project is at the 100% stage; however, designs will be updated to reflect changes in implementing agency, and a revised CEQA document will be circulated. An Environmental Assessment (EA) and Initial Study (IS) for CEQA and National Environmental Policy Act (NEPA) compliance were completed in December 2007 by USACE and a Notice of Determination (NOD) and Project Approval was completed May 2008. Because of the time that has passed and project changes involving the hauling and disposal of excavated soil, a new CEQA document will be released. This document will be a Supplemental EIR. This SEIR will supplement SAFCA's Natomas Levee Improvement Program (NLIP) EIR, because the soil will be hauled offsite for use in that project. In order to implement this project, the following permits will be required: Department of Fish and Game Section 1602 Streambed Alteration Agreement; Section 2081 California Endangered Species Act

Incidental Take Permit; Army Corps of Engineers 404 permit and Section 7 consultation for Clean Water Act and Federal Endangered Species Act compliance; RWQCB Section 401 Permit for water quality certification; CVFPB Encroachment Permit for permission to work in a floodway; State Lands Commission Lease for permission to work on state lands (if required); SWPPP will be prepared by the contractor as a condition of the contract.

Work items include advertising for bid, bid opening, reviewing the bids and issuing the NOA/NTP, as well as, the Construction Contract Award and will be performed by SAFCA staff. The Final Design Package will be used for the bid advertisement.

The total estimated budget for this task is \$319,866 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$319,866).

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization, as described in the following sections.

Mobilization and Site Preparation

Upon the NTP, the contractor will mobilize its equipment and crew according to the staging plan. This will include moving equipment and materials to the site, grading and surfacing lay down and access roads as required and any temporary trailer, portable toilets and/or fencing required.

Project Construction

After site mobilization and site preparation, project construction will occur in two phases. In the first phase, elderberry shrubs that currently occupy approximately 2.5 of the 3.3 acres identified for floodplain habitat will be transplanted onto 10 acres of upland currently covered in non-native weedy grasses, blackberry vines, and a few native trees. Prior to transplanting, the site will be cleared and grubbed to prepare the upland area for the elderberry shrubs. The five acres will also be planted with elderberry seedlings and associated riparian species as established during consultation.

During the second construction phase, the existing bank at RM 0.5R will be reshaped to create fish and wildlife habitat. After the bank is reshaped, vegetation will be planted according to the planting plan. An irrigation system will be constructed to ensure establishment of the plantings, and a beaver exclusion fence installed along the shoreline to increase plant survival. As part of site clean-up, all equipment and excess materials will be transported offsite. Any disturbed areas outside the planting zones will be reseeded with native grasses to promote revegetation and minimize soil erosion.

Finally, all work sites will be cleaned of all rubbish and all parts of the work will be left in a safe and neat condition suitable to the naturalistic and recreation setting of the Parkway. Cleared vegetation, organic debris, unused top soil and any trash will be removed from the site via truck and disposed at the Sacramento County landfill or other approved site. The estimated 60,000 cubic yards of soil material excavated during grading and shaping of the floodplain will be removed by truck and stockpiled at a property owned by SAFCA along the Garden Highway.

Performance Testing and Demobilization

The contractor will perform site clean-up and stabilization. This subtask also includes the preparation of record drawings, final inspection and project certification, and contractor demobilization. Plant establishment monitoring will continue after construction.

The total estimated budget for this task is \$1,791,581 (Required Cost Share: \$200,000; Grant Share: \$1,408,183; Additional Cost Share: \$183,398).

Environmental Compliance/Mitigation/Enhancement

An EA and IS for CEQA and NEPA compliance were completed in May 2008, resulting in a MND. All mitigation measures have been incorporated into the final design. Mitigation will be accomplished by avoiding sensitive resources through pre-construction surveys. Elderberries on the site will be transplanted per U.S. Fish and Wildlife Service requirements. Water quality will be protected via a SWPPP and BMPs, which will be the responsibility of the contractor. Implementation of an approved Project Monitoring Plan will be conducted as part of this task.

The total estimated budget for this task is \$23,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$23,000).

Construction Administration

Construction Administration includes Construction Management services. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$143,326 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$143,326).

Other

This task includes preparing the Project Monitoring Plan and payment for permits described above.

The total estimated budget for this task is \$8,508 (\$525 PMP; \$7,983 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$8,508)).

Construction/Implementation Contingency

A 20% construction/implementation contingency has been included. This rate is based on prior experience and engineering practice.

The total estimated budget for this task is \$358,316 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$358,316).

PROJECT 13: LOWER COSUMNES RIVER FLOODPLAIN RESTORATION PROJECT

Project Description

The project will include levee breaching, re-creating historic sloughs and off-channel wetlands, and installing fish screens on existing water intake structures. The project will result in 143 acres of additional floodplain, riparian forest habitat and juvenile salmon rearing habitat.

The total estimated budget for this project is \$2,557,195 (Required Cost Share: \$100,000; Grant Share: \$415,041; Additional Cost Share: \$2,042,154).

Direct Project Administration

Administration includes communication with RWA and contractors, budget adjustments, and project status meetings. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the Lower Cosumnes River Floodplain project. A project completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$37,560 (Required Cost Share: \$0; Grant Share: \$37,560; Additional Cost Share: \$0).

Land Purchase/Easement

No land purchases or easements are required for this project, and therefore, there are no associated costs in the budget.

Planning/Design/Engineering/Environmental Documentation

Ducks Unlimited completed the 10% design of the Lower Cosumnes Floodplain Restoration Project. The 100% (or final) design will be the design package that is used to advertise the bid for construction. The package will consist of the complete, signed plans and specifications. During design, AWWA and ASTM Construction Standards, OSHA regulations, and industry standard practice will be used as construction standards and health and safety standards. All other applicable project design and material standards will also be used. Environmental documentation has not yet been completed. A CEQA MND will be prepared. To comply with NEPA, an EA will also be developed; the EA will specifically help satisfy the federal Endangered Species Act and National Historic Preservation Act as required for federal funding currently being sought for the project. In order to implement this project, the following permits will be acquired: Department of Fish and Game Section 1600 Streambed Alteration Agreement for construction in the Cosumnes River. DFG is a partner on the Cosumnes River Preserve and will assist with development of the permit. U.S. Army Corps of Engineers Section 404 Encroachment permit for Clean Water Act and Federal Endangered Species Act compliance. RWQCB Section 401 Permit for water quality certification. CVFPB Encroachment Permit for permission to work on the levee. RWQCB Stormwater NPDES Permit for Construction. A SWPPP will be drafted by the contractor to help minimize the impacts of stormwater runoff from the construction site by documenting stormwater BMPs and for state environmental compliance. Permits will be prepared, submitted and acquired by Ducks Unlimited as an agent of the Bureau of Land Management (landowner).

The total estimated budget for this task is \$626,432 (Required Cost Share: \$100,000; Grant Share: \$142,248; Additional Cost Share: \$384,184).

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Upon the NTP, the contractor will mobilize its equipment and crew according to the staging plan and perform possible pre-construction surveys, including determining the presence of giant garter snakes as required for NEPA compliance.

Project Construction

During project construction, the construction contractor will excavate interior slough channels, construct interior access roads, and install fish exclusion screens on existing water intake structures. The levee will be breached in two locations to provide perennial and tidal connectivity between the river and the floodplain. From the breaches, a channel will be cut into the site to re-establish two historic tidal slough channels. Multiple slough side channels with varying elevations and small sub-floodplains will also be excavated off the two main channels. Inspection and testing will be performed on the constructed project by engineers from Ducks Unlimited, followed by revegetation and plant establishment. The construction contractor has sole and complete responsibility for the safety of all personnel and property on site for the project direction and will perform within OSHA and any other applicable codes, regulations, and ordinances.

Performance Testing and Demobilization

In this construction stage, the contractor will perform site clean-up and stabilization. Final inspection and project certification (which will be performed by engineers from Ducks Unlimited) will also be performed along with contractor demobilization. Inspections and project certification will be performed by Ducks Unlimited staff. After project completion, fish and water quality monitoring will be performed. Fish monitoring will identify and evaluate native fish use of the project site after completion. Specifically, the fish monitoring will examine the fall run Chinook Salmon, Sacramento Splittail, and Delta Smelt. Providing juvenile fish rearing habitat for these species is one of the primary goals of the project and monitoring will be used to assess ultimate success of the project. A specific fish monitoring protocol will be solicited/developed when project funding is secured. Water quality monitoring will include turbidity, salinity, nutrients both within the floodplain and the adjacent Cosumnes River upstream and downstream of the project site. A specific water quality monitoring protocol will be solicited/developed when the project funding is secured.

The total estimated budget for this task is \$1,249,000 (Required Cost Share: \$0; Grant Share: \$224,683; Additional Cost Share: \$1,024,317).

Environmental Compliance/Mitigation/Enhancement

A SWPPP will be developed and implemented as well as any mitigation measures identified in the approved MND and EA. The SWPPP BMPs will include seeding of all disturbed soil areas and equipment staging areas and other stormwater measures for post-construction project stabilization. Mitigation measures for CEQA and NEPA compliance are anticipated to consist of timing construction to occur during the non-breeding season for the Swainson's Hawk and other birds, and monitoring sensitive flora and fauna species during project implementation. Cofferdams will also be constructed to prevent sedimentation and preserve water quality in the Cosumnes River during implementation of the project. Development and implementation of the SWPPP will be the responsibility of the contractor.

In addition, implementation of the approved Project Monitoring Plan will be covered under this task.

The total estimated budget for this task is \$170,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$170,000).

Construction Administration

Construction Administration and management work items will be conducted under this task. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$41,472 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$41,472).

Other

This Task includes preparing the Project Monitoring Plan, monitoring of project benefits, public outreach, and obtaining permits described above.

The total estimated budget for this task is \$307,831 (Required Cost Share: \$0; Grant Share: \$10,550; Additional Cost Share: \$297,281).

Construction/Implementation Contingency

An approximately 10% construction/implementation contingency has been included for this project. This value was chosen due to the stage of the project as well as experience with past projects.

The total estimated budget for this task is \$124,900 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$124,900).

PROJECT 14: LOWER COSUMNES RIVER INTEGRATED GROUNDWATER RECHARGE PROJECT

Project Description

This project will include an 80+-acre spreading basin to be constructed and maintained by Omochumne-Hartnell Water District (OHWD) adjacent to the Cosumnes River and recharge groundwater with up to 4,000 AF/year of Rancho Murieta Community Services District (RMCS D) surface water and construct a recovery well with an estimated capacity of 600 gpm for RMCS D to reduce supply deficits. The well will increase supply to RMCS D by an estimated average annual of 300 AF. For grant management purposes, the project has been divided into two project elements – Lower Consumnes River Integrated Groundwater Recharge Project (Project 14) and Lower Consumnes River Integrated Groundwater Recovery Project (Project 17). The groundwater recharge aspect of the project sponsored by OHWD is described below.

The total estimated budget for this project is \$1,489,675 (Required Cost Share: \$50,000; Grant Share: \$986,668; Additional Cost Share: \$453,007).

Direct Project Administration

Administration includes Board communications, budget adjustments, project status meetings, communication with RWA and contractors, and between the two participating agencies, OHWD and RMCS D. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the project. A completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$26,544 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$26,544).

Land Purchase/Easement

The proposed location of the project is not owned by OHWD. OHWD and the land owner are currently working toward developing a lease agreement for an initial 10-year period with an option for an additional 10-years, ensuring a 20-year lifetime on the spreading basin.

The total estimated budget for this task is \$75,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$75,000).

Planning/Design/Engineering/Environmental Documentation

Conceptual design (10% design) of the project has been completed; additional design deliverables will be prepared and submitted as part of the project. All materials used and procedures followed will conform to ASTM designations, State specifications, and other applicable engineering standards such as American Society of Civil Engineers (ASCE), AWWA. OHWD will draft, submit and adopt an IS and MND. Construction permits will include a U.S. Army Corps of Engineers Section 404 Encroachment Permit, a California Department of Fish and Game Section 1601 Permit, and compliance with the State's General NPDES Permit for Stormwater Discharges during construction will be required. A project bid package will be prepared and a contractor will be secured through a competitive selection process.

The total estimated budget for this task is \$306,048 (Required Cost Share: \$25,000; Grant Share: \$206,048; Additional Cost Share: \$75,000).

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Mobilization and site preparation for this project will include pre-construction surveys; grubbing and clearing for site access; prepping of the staging area, spreading basin site, diversion unit site and pipeline route; and the implementation of any required mitigation actions. Site preparation also includes designation of staging areas and grading access ramps to diversion unit site near the Cosumnes River and to the spreading basin to meet the existing levee road, and winterization of the site(s) in October in anticipation of winter season.

Project Construction

OHWD is proposing to install a new pump station and intake on the right bank of the Cosumnes River near River Mile 22, upstream of Blodgett Dam. The new pump would draw water from a wet well placed in a river bank area that is hydraulically connected to the river. A culvert would connect this wet well to the intake structure on the river. The intake structure would screen the diversion to protect fishery resources (fish screen or infiltration gallery). The pump will be designed to draw up to 30 cfs of water. The pumping unit would consist of the wet well caisson, a water pump, and electric motors. Pump and motor controls will be installed on a platform above the wet well. The platform will be placed above the 100-year flood levels. Power sources for the lift station and fish screen would be installed by Sacramento Municipal Utility District (SMUD) as part of this project.

OHWD would also install about 600 feet of pipeline to convey the water from the pumping unit to the spreading basin. Existing soils in the project area will be tested to determine its suitability as a backfill around the pipeline and levee protection features. Pressure relief and vacuum valves would be installed to provide pipeline protection. A riprap outflow structure will be constructed in the spreading basin to dissipate energy from water flow and provide protection against soil erosion. The spreading basin would be constructed to allow infiltration of water; removal of top soil will improve the infiltration rates and will provide earth material needed for constructing berms around the basin. A monitoring well, with up to four nested piezometers, would also be completed as part of the Phase 1 project within the spreading basin to assess groundwater impacts. Field experience during drilling will determine the final monitoring well design.

Performance Testing and Demobilization

Following project construction, performance testing will be performed on new facilities. This includes a percolation test on the new spreading basin, leakage tests performed on all pipes, followed by full system flow tests conducted in the pipelines after the system is operational. Testing and demonstration of diversion pumps and associated electrical components, valves, gauges and other mechanical equipment will also be performed.

The total estimated budget for this task is \$835,000 (Required Cost Share: \$25,000; Grant Share: \$735,000; Additional Cost Share: \$75,000).

Environmental Compliance/Mitigation/Enhancement

Little environmental mitigation or enhancement actions beyond normal construction BMPs are expected to be required for the project. A SWPPP will also be prepared and implemented as part of project construction; thus only standard stormwater BMPs will be implemented through the construction period. Implementation of an approved Project Monitoring Plan will be included as part of this task.

The total estimated budget for this task is \$4,800 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$4,800).

Construction Administration

Construction Administration includes Construction Management services. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$65,876 (Required Cost Share: \$0; Grant Share: \$45,620; Additional Cost Share: \$20,256).

Other

This task includes preparing the Project Monitoring Plan and securing of permits noted above.

The total estimated budget for this task is \$9,407 (\$525 PMP; \$8,882 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$9,407)).

Construction/Implementation Contingency

A construction/implementation contingency of 20% has been included and is based on prior experience and the early stage of the project.

The total estimated budget for this task is \$167,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$167,000).

PROJECT 15: SLEEPY HOLLOW DETENTION BASIN RETROFIT PROJECT

Project Description

This project will modify an existing 6.3 acre flood detention basin using low impact development techniques such as the development of perennial channels to treat summer irrigation flows, seasonal wetland areas to treat large storm flows and winter runoff, habitat heterogeneity through creation of riparian clusters and habitat mounds. The basin will also be used to increase recharge from stormwater.

The total estimated budget for this project is \$973,384 (Required Cost Share: \$0; Grant Share: \$222,345; Additional Cost Share: \$751,039).

Direct Project Administration

The City of Elk Grove will be the lead agency on this project, but the project will be implemented cooperatively with Laguna Creek Watershed Council (LCWC), the Sheldon Community Association, and with local, well organized grass-roots community groups. Labor compliance will be implemented under an approved LCP. Quarterly reports will be prepared assessing the progress and accomplishments of the Sleepy Hollow Detention Basin Retrofit Project. A project completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$14,118 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$14,118).

Land Purchase/Easement

Morrison Homes Inc. completed the Sleepy Hollow Unit 2 subdivision in 2005. The conditions of approval required the developer to dedicate the lots containing the detention basin to the City of Elk Grove, so land purchase/easement is not required.

Planning/Design/Engineering/Environmental Documentation

Four design submittals are expected to be completed for this project. The 100% Design will be used to advertise the project for bid for construction and will consist of the complete and signed specifications.

The proposed retrofit design must not compromise the primary objective of the detention basin: 100-year storm event flood control protection. Construction material will only include temporary irrigation pipes and equipment to be used for a minimum of five years to help establish the plantings. Conveyance of stormwater will be achieved by created drainage swales and no piping will be required. An environmental analysis for CEQA compliance has not yet been completed; however, a MND will be completed. Permitting requirements will be identified and considered during project design. A California Department of Fish and Game Section 1602 Streambed Alteration Agreement. Compliance with the State's General Stormwater NPDES Permit for construction will also be required. A SWPPP will be developed by the contractor and implemented. A U.S. Army Corps of Engineers Section 404 Encroachment Permit for construction in U.S. Waters; if a Section 404 Permit is sought, then a Central Valley RWQCB Section 401 Permit for water quality certification will also be required. The dry wells will be registered with the United States Environmental Protection Agency Underground Injection Control Program. A project bid package will be prepared and a contractor will be secured through a competitive selection process.

The total estimated budget for this task is \$143,226 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$143,226).

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

The contractor will mobilize their equipment and crew according to the pre-designated staging plan. Mobilization and site preparation includes clearing a path to the work area, creating a temporary staging area, and mobilizing large construction equipment to the site. Additionally, the contractor will install temporary construction fencing, stormwater management controls, and clear and grub the site.

Project Construction

For project construction, the contractor will retrofit the new multi-purpose basin. This will include grading for wetland creation and habitat enhancement, constructing five Darcy Columns (dry wells), constructing and installing irrigation piping, and constructing recreational trails. In addition, trees and shrubs will be planted, and interpretive signs will be placed.

Performance Testing and Demobilization

Following project construction, the contractor will perform site clean-up and fencing. This work phase also includes final inspection and project certification. Lastly, the contractor will demobilize all equipment to complete construction.

The total estimated budget for this task is \$263,400 (Required Cost Share: \$0; Grant Share: \$222,345; Additional Cost Share: \$41,055).

Environmental Compliance/Mitigation/Enhancement

The Sleepy Hollow Detention Basin Retrofit Project is an environmental enhancement project; as such, it is anticipated that there will be no environmental mitigations required beyond standard construction mitigation measures. All measures described in the SWPPP and any permits will be followed. Also included in this task is implementation of the approved Project Monitoring Plan.

The total estimated budget for this task is \$357,500 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$357,000).

Construction Administration

Construction Administration and Construction Management work items will be conducted under this task. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$61,435 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$61,435).

Other

Other tasks include baseline monitoring, community engagement and preparation of the Project Monitoring Plan.

Baseline monitoring will consist of a water quality assessment of the storm runoff coming into the basin and discharging from the basin. The Baseline Monitoring Plan Report will evaluate existing incoming and discharge water quality conditions to measure against post-construction conditions, and it will also summarize the hydrology of basin and groundwater percolation capacity.

The City desires to engage the adjacent community through at least one workshop to let them know about the Project and the City's intentions. The City will advertise the workshops, prepare presentations, host the workshops, gather input, address issues and communicate with the community.

The total estimated budget for this task is \$81,025 (\$525 PMP; \$5,500 permits; \$10,000 community outreach; \$40,000 baseline monitoring; \$25,000 Sacramento County fees (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$81,025)).

Construction/Implementation Contingency

A construction/implementation contingency of 20% has been included. This contingency value was selected based on the development of the project and previous experience with similar projects.

The total estimated budget for this task is \$52,680 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$52,680).

PROJECT 16: ANTELOPE CREEK INTEGRATED WATER EFFICIENCY PROJECT

Project Description

This is a multi-objective water efficiency and regional flood control improvement project proposed within the Dry Creek Watershed area of the American River Basin. This project includes the first phase of a two-phase project. The first phase includes the concrete gunite lining and other improvements of the Antelope Creek/Canal and its tributaries and the construction of one (in a future series of two) on-channel flood control weirs on Antelope Creek. The project will conserve up to 125 AF per year, reduce the amount of erosion in the watershed, improve water quality and reduce peak flow from a 100-year storm event by 530 cubic feet second on Antelope Creek near Atlantic Street in the City of Roseville. For grant management purposes, the project has been split into two project elements (Antelope Creek Integrated Flood Control Project and Antelope Creek Integrated Water Efficiency Project). The Antelope Creek Integrated Water Efficiency Project sponsored by Placer County Water Agency is described below.

The total estimated budget for this project is \$536,416 (Required Cost Share: \$20,130; Grant Share: \$379,468; Additional Cost Share: \$136,818).

Direct Project Administration

Administration includes Board communications, budget adjustments, project status meetings, and communication with RWA and contractors and communication between the two participating agencies, Placer County Water Agency (PCWA) and Placer County Flood Control and Water Conservation District (District). Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the project. A completion report will also be prepared at the end of the project, as well as, annual reporting.

The total estimated budget for this task is \$25,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$25,000).

Land Purchase/Easement

The canal lining portions of the project area will be submitted to the PCWA Property Specialist to determine existing PCWA easements and if other easements will need to be obtained.

The total estimated budget for this task is \$15,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$15,000).

Planning/Design/Engineering/Environmental Documentation

Planning documents have been prepared to demonstrate the viability of the project. At this time, the project has completed the conceptual (10%) design stage. During design, AWWA and ASTM Construction Standards and OSHA regulations and industry standard practice will be used as construction standards and health and safety standards. PCWA anticipates filing a Negative Declaration for CEQA compliance for the project. It is not expected that permits will be required for the project, but it may need to comply with a SWPPP.

The total estimated budget for this task is \$20,000 (Required Cost Share: \$5,130; Grant Share: \$0; Additional Cost Share: \$14,870).

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

Upon receipt of the NTP, the contractor and PCWA crews will begin mobilization and site preparation activities. These activities will include selective clearing and grubbing of debris and invasive species within the construction areas and following all prescribed SWPPP measures.

Project Construction

For canal outlets, PCWA staff will shape the area with hand tools and off-road construction equipment, install rip-rap or other material to dissipate the energy of the flowing water, install filter fabric and other devices as needed to prevent erosion, and install reinforcing wire where needed. The outside contractor will "shoot" the gunite, following direction from PCWA staff.

For raising canal walls, PCWA staff will shape the canal with hand tools and off-road construction equipment, increase the height of the canal wall with either material excavated from the canal or with temporary walls made from boards, and install reinforcing wire to the bottom and sides of the canal. Following canal lining, when the gunite has cured and hardened, each canal outlet will be opened and allowed to flow at a flow rate that would be typical of a stormwater flow. The effectiveness of the energy dissipater will be evaluated for its ability to reduce the velocity of the water and reduce the amount of sediment transported. Turbidity samples will be taken at the canal outlet and at the point where the flow enters a natural or manmade water way utilizing a portable Turbidity meter.

The precise number of sites and locations to receive improvements will be identified in the project planning and design phase and will be provided to DWR prior to commencing with the construction phase of the project.

The total estimated budget for this task is \$407,468 (Required Cost Share: \$15,000; Grant Share: \$379,468; Additional Cost Share: \$13,000).

Environmental Compliance/Mitigation/Enhancement

All personnel associated with this project will observe and comply with the PCWA *Natural Resources Management Training Manual* BMPs. A Project Monitoring Plan will be prepared for this project to direct longer-term project monitoring to ensure successfully project implementation and operation.

The total estimated budget for this task is \$30,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$30,000).

Construction Administration

Construction Administration includes Construction Management services and other administrative activities relating to project implementation. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$10,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$10,000).

Other

This task includes preparing the Project Monitoring Plan and includes an estimate budget for any permits that are not yet identified.

The total estimated budget for this task is \$5,575 (\$525 PMP; \$5,050 permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$5,575)).

Construction/Implementation Contingency

A construction/implementation contingency of 5% will be used for this project, which is based on previous projects and the relatively simple nature of the construction activities for this project.

The total estimated budget for this task is \$23,373 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$23,373).

PROJECT 17: LOWER COSUMNES RIVER INTEGRATED GROUNDWATER RECOVERY PROJECT

Project Description

This project will include an 80+-acre spreading basin to be constructed and maintained by Omochumne-Hartnell Water District (OHWD) adjacent to the Cosumnes River and recharge groundwater with up to 4,000 AF/year of Rancho Murieta Community Services District (RMCS D) surface water and construct a recovery well with an estimated capacity of 600 gpm for RMCS D to reduce supply deficits. The well will increase supply to RMCS D by an estimated average annual of 300 AF. For grant management purposes, the project has been divided into two project elements – Lower Cosumnes River Integrated Groundwater Recharge Project (Project 14) and Lower Cosumnes River Integrated Groundwater Recovery Project (Project 17). The groundwater recovery aspect of the project sponsored by RMCS D is described below.

The total estimated budget for this project is \$1,033,265 (Required Cost Share: \$20,130; Grant Share: \$494,097; Additional Cost Share: \$519,038).

Direct Project Administration

Administration includes Board communications, budget adjustments, project status meetings, communication with RWA and contractors, and between the two participating agencies, OHWD and RMCS D. Labor compliance will be implemented under an approved LCP. Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the project. A project completion report will also be prepared at the end of the project, as well, as annual reporting.

The total estimated budget for this task is \$34,430 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$34,430).

Land Purchase/Easement

The proposed location of the project is not owned by RMCS D. The proposed well location is within an easement dating back to 1995; however, portions of the transmission pipeline will be outside of the existing easement, so new easement extensions will need to be negotiated.

The total estimated budget for this task is \$50,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$50,000).

Planning/Design/Engineering/Environmental Documentation

All materials used and procedures followed will conform to ASTM designations, State specifications, and other applicable engineering standards such as ASCE, AWWA and California Water Well Standards. RMCS D will prepare and adopt an IS/MND for the project. Minimal impacts are anticipated and a MND will subsequently be completed and adopted for the water rights portion of the project. A Sacramento County Well Permit will be required. Compliance with the State's General NPDES Permit for Stormwater Discharges during construction will also be required. For operation of the project, a California Division of Water Rights Additional Point of Diversion permit will be required to allow the diversion of water from the stream to the spreading basins and a CDPH approval will be required to amend the RMCS D's water supply permit to allow the new water supply. The project will be split into two bid packages: one bid package will be for construction of well head facilities including

plumbing, pump and electrical controls; and the second bid package will be for construction of the transmission pipeline.

The total estimated budget for this task is \$170,000 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$170,000).

Construction/Implementation

Construction is divided into three categories: mobilization and site preparation, project construction, and performance testing and demobilization.

Mobilization and Site Preparation

This includes an onsite meeting with the construction contractor and equipment mobilization to the project location.

Project Construction

The new well will be installed on westerly edge of RMCS D's service area on agriculture lands. The new well will be constructed of 12- to 16-inch diameter steel casing with stainless steel screen, between 500 and 600 feet in depth. The well and associated well head facilities will be designed to pump between 500 and 600 gpm. The pumping unit would consist of an above-grade water pump and electric motor set on a platform. The platform will be placed above the 100-year flood level. Power sources would be installed by Sacramento Municipal Utility District (SMUD) as part of this project. Also as part of the construction, RMCS D will install approximately 5,000 feet of 10-inch pipeline to convey the water from the well site to the existing distribution system for a direct connection. Existing soils in the project area will be tested to determine its suitability as a backfill around the pipeline, and backfill will be augmented by select imported material for the pipe bedding and pipe zone, as appropriate for the type of pipe installed. Backflow valves will be installed to provide well protection.

Performance Testing and Demobilization

This will include start-up and operation testing of the well and demobilization from the site by the contractor.

The total estimated budget for this task is \$665,000 (Required Cost Share: \$20,130; Grant Share: \$494,097; Additional Cost Share: \$150,773).

Environmental Compliance/Mitigation/Enhancement

Little environmental mitigation or enhancement actions beyond normal construction BMPs are expected to be required for the project. A SWPPP will also be prepared and implemented as part of project construction; thus only standard stormwater BMPs will be implemented through the construction period. An approved Project Monitoring Plan will be included as part of this task.

The total estimated budget for this task is \$4,800 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$4,800).

Construction Administration

Construction Administration includes Construction Management services. Management includes: review of contractor's schedule; management and coordination; maintenance of detailed project records; review and distribution of submittals; and construction inspection.

The total estimated budget for this task is \$33,250 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$33,250).

Other

This task includes preparing the Project Monitoring Plan and securing of permits noted above.

The total estimated budget for this task is \$9,285 (\$525 PMP; \$1,000 County permits; \$7,760 other permits (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$9,285)).

Construction/Implementation Contingency

A construction/implementation contingency of 20% has been included and is based on prior experience and the early stage of the project.

The total estimated budget for this task is \$66,500 (Required Cost Share: \$0; Grant Share: \$0; Additional Cost Share: \$66,500).

EXHIBIT C
BUDGET

RWA Proposition 84 Implementation Program Budget Summary								
Project #	Project Name	Implementing Agency	DWR Grant Amount	Total Project Cost	"Required" Cost Share	Reviewed Costs (Grant Share + Required Cost Share)	"Additional" Non-Reviewed Cost Share	Other State Funding
1	City of Roseville ASR Program - Phase 2	City of Roseville	\$ 1,976,397	\$ 4,437,513	\$ 750,000	\$ 2,726,397	\$ 1,711,116	
2	Secret Ravine Fish Passage Improvement Project	City of Roseville and Dry Creek Conservancy	\$ 311,051	\$ 366,551	\$ -	\$ 311,051	\$ 55,500	\$ 55,500
3	E. A. Fairbairn Groundwater Well	City of Sacramento	\$ 988,198	\$ 1,578,454	\$ 100,000	\$ 1,088,198	\$ 490,256	
4	Shasta Park Reservoir and Well Project	City of Sacramento	\$ 988,199	\$ 13,609,693	\$ 5,400,000	\$ 6,388,199	\$ 7,221,494	
5	Antelope Creek Integrated Flood Control Improvement Project	Placer County Flood Control and Water Conservation District	\$ 741,149	\$ 1,519,699	\$ 100,000	\$ 841,149	\$ 678,550	
6	Regional Water Meter Retrofit Acceleration Project (Water Conservation Project)	Regional Water Authority	\$ 913,095	\$ 959,545	\$ -	\$ 913,095	\$ 46,450	
7	Regional Indoor and Outdoor Water Efficiency Project (Water Conservation Project)	Regional Water Authority	\$ 988,198	\$ 1,004,439	\$ -	\$ 988,198	\$ 16,241	
8	Recycled Water for the SMUD Co-Generation Facility	Sacramento Regional County Sanitation District (SRCSD)	\$ 1,547,519	\$ 9,165,994	\$ 2,700,000	\$ 4,247,519	\$ 4,918,475	
9	North Antelope Booster Pump Station	Sacramento Suburban Water District	\$ 261,873	\$ 918,412	\$ 200,000	\$ 461,873	\$ 456,539	
10	Coyle Avenue and Roseview Park Pump Stations and Water Treatment Systems Project	Sacramento Suburban Water District	\$ 1,482,298	\$ 5,706,162	\$ 1,800,000	\$ 3,282,298	\$ 2,423,864	
11	Willow Hill Pipeline Rehabilitation Project	City of Folsom	\$ 1,926,987	\$ 7,606,671	\$ 2,600,000	\$ 4,526,987	\$ 3,079,684	
12	Aquatic and Riparian Habitat Enhancement in the Lower American River at River Mile 0.5R	Sacramento Area Flood Control Agency	\$ 1,408,183	\$ 2,697,974	\$ 200,000	\$ 1,608,183	\$ 1,089,791	
13	Lower Cosumnes River Floodplain Restoration Project	Ducks Unlimited	\$ 415,041	\$ 2,557,195	\$ 100,000	\$ 515,041	\$ 2,042,154	
14	Lower Cosumnes River Integrated Groundwater Recharge Project	Omochumne-Hartnell Water District	\$ 986,668	\$ 1,489,675	\$ 50,000	\$ 1,036,668	\$ 453,007	
15	Sleepy Hollow Detention Basin Retrofit	City of Elk Grove	\$ 222,345	\$ 973,384		\$ 222,345	\$ 751,039	
16	Antelope Creek Integrated Water Efficiency Project	Placer County Water Agency	\$ 379,468	\$ 536,416	\$ 20,130	\$ 399,598	\$ 136,818	
17	Lower Cosumnes River Integrated Groundwater Recovery Project	Rancho Murieta Community Services District	\$ 494,097	\$ 1,033,265	\$ 20,130	\$ 514,227	\$ 519,038	
		Grand Total	\$ 16,030,766	\$ 56,161,041	\$ 14,040,260	\$ 30,071,026	\$ 26,090,015	

EXHIBIT D
STANDARD CONDITIONS

D.1 ACCOUNTING AND DEPOSIT OF GRANT DISBURSEMENT:

- a) **SEPARATE ACCOUNTING OF GRANT DISBURSEMENT AND INTEREST RECORDS:** Grantee shall account for the money disbursed pursuant to this Grant Agreement separately from all other Grantee funds. Grantee shall maintain audit and accounting procedures that are in accordance with generally accepted accounting principles and practices, consistently applied. Grantee shall keep complete and accurate records of all receipts, disbursements, and interest earned on expenditures of such funds. Grantee shall require its contractors or subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices. Records are subject to inspection by State at any and all reasonable times.
- b) **FISCAL MANAGEMENT SYSTEMS AND ACCOUNTING STANDARDS:** The Grantee agrees that, at a minimum, its fiscal control and accounting procedures will be sufficient to permit tracing of grant funds to a level of expenditure adequate to establish that such funds have not been used in violation of state law or this Grant Agreement.
- c) **REMITTANCE OF UNEXPENDED FUNDS:** Grantee, within a period of sixty (60) calendar days from the final disbursement from State to Grantee of grant funds, shall remit to State any unexpended funds that were disbursed to Grantee under this Grant Agreement and were not needed to pay Eligible Project Costs.

D.2 ACKNOWLEDGEMENT OF CREDIT: Grantee shall include appropriate acknowledgement of credit to the State and to all cost-sharing partners for their support when promoting the Project or using any data and/or information developed under this Grant Agreement. During construction of the Project, Grantee shall install a sign at a prominent location which shall include a statement that the Project is financed under the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006, administered by State of California, Department of Water Resources. Grantee shall notify State that the sign has been erected by providing them with a site map with the sign location noted and a photograph of the sign.

D.3 AMENDMENT: No amendment or variation of the terms of this Grant Agreement shall be valid unless made in writing, signed by the parties and approved as required. No oral understanding or agreement not incorporated in the Grant Agreement is binding on any of the parties. For guidance on the Amendment Requirements see Exhibit H.

D.4 AMERICANS WITH DISABILITIES ACT: By signing this Grant Agreement, Grantee assures State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C., 12101 *et seq.*), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

D.5 AUDITS: State reserves the right to conduct an audit at any time between the execution of this Grant Agreement and the completion of the Project, with the costs of such audit borne by State. After completion of the Project, State may require Grantee to conduct a final audit, at Grantee's expense, such audit to be conducted by and a report prepared by an independent Certified Public Accountant. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and State may take any action it deems necessary to protect its interests.

Pursuant to Government Code Section 8546.7, the parties shall be subject to the examination and audit of State for a period of three years after final payment under this Grant Agreement with respect of all matters connected with this Grant Agreement, including but not limited to, the cost of administering this Grant Agreement. All records of Grantee or subcontractors shall be preserved for this purpose for at least three (3) years after Project completion. See Exhibit H for a listing of documents/records that State Auditors would need to review in the event of a grant being audited.

D.6 BUDGET CONTINGENCY: LIMIT ON STATE FUNDS. Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 is subject to the availability of funds including any mandates from the Department of Finance, the Pooled Money Investment Board or any other state

authority. The State will not make payments of any kind, including advances or reimbursements, until funding is made available by the State Treasurer.

- D.7 CHILD SUPPORT COMPLIANCE ACT:** For any Grant Agreement in excess of \$100,000, the Grantee acknowledges in accordance with Public Contract Code 7110, that:
- a) The Grantee recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
 - b) The Grantee, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.
- D.8 COMPETITIVE BIDDING AND PROCUREMENTS:** Grantee shall comply with all applicable laws and regulations regarding securing competitive bids and undertaking competitive negotiations in Grantee's contracts with other entities for acquisition of goods and services and construction of public works with funds provided by State under this Grant Agreement.
- D.9 COMPUTER SOFTWARE:** The Grantee certifies that it has appropriate systems and controls in place to ensure that state funds will not be used in the performance of this Grant Agreement for the acquisition, operation, or maintenance of computer software in violation of copyright laws.
- D.10 CONFLICT OF INTEREST**
- a) **Current State Employees:** No State officer or employee shall engage in any employment, activity, or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity, or enterprise is required as a condition of regular State employment. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.
 - b) **Former State Employee:** For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.
- D.11 DELIVERY OF INFORMATION, REPORTS, AND DATA:** The Grantee agrees to expeditiously provide, during work on the Project and throughout the term of this Grant Agreement, such reports, data, information, and certifications as may be reasonably required by the State.
- D.12 DISPOSITION OF EQUIPMENT:** Grantee shall provide to State, not less than 30 days prior to submission of the final project invoice, a final inventory list of equipment purchased with grant funds provided by State. Grantee shall consult with State on the scope of the inventory not less than 60 days prior to the submission of the final project invoice. The inventory shall include all items with a current estimated fair market value of more than \$5,000 per item. Within 60 days of receipt of such inventory, State shall provide Grantee with a list of the items on the inventory that State will take title to. All other items shall become the property of Grantee. State shall arrange for delivery from Grantee of items that it takes title to. Cost of transportation, if any, shall be borne by State.
- D.13 DISPUTES:** In the event of an invoice dispute, payment will not be made until the dispute is resolved and a corrected invoice submitted. Failure to use the address exactly as provided may result in return of the invoice to the Grantee. Payment shall be deemed complete upon deposit of the payment, properly addressed, postage prepaid, in the United States mail. Any claim that Grantee may have regarding the performance of this Grant Agreement including, but not limited to claims for additional compensation or extension of time, shall be submitted to the Director, Department of Water Resources, within thirty (30)

calendar days of Grantee's knowledge of the claim. State and Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to the Grant Agreement to implement the terms of any such resolution.

D.14 DRUG-FREE WORKPLACE CERTIFICATION

Certification of Compliance: By signing this Grant Agreement, Grantee, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code 8350 *et seq.*) and have or will provide a drug-free workplace by taking the following actions:

- a) Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code Section 8355(a).
- b) Establish a Drug-Free Awareness Program, as required by Government Code Section 8355(b) to inform employees, contractors, or subcontractors about all of the following:
 1. The dangers of drug abuse in the workplace,
 2. Grantee's policy of maintaining a drug-free workplace,
 3. Any available counseling, rehabilitation, and employee assistance programs, and
 4. Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.
- c) Provide as required by Government Code Sections 8355(c), that every employee, contractor, and/or subcontractor who works under this Grant Agreement:
 1. Will receive a copy of Grantee's drug-free policy statement, and
 2. Will agree to abide by terms of Grantee's condition of employment, contract or subcontract.

D.15 FINAL INSPECTIONS AND CERTIFICATION OF REGISTERED CIVIL ENGINEER: Upon completion of a construction project and as determined by State, Grantee shall provide for a final inspection and certification by a California Registered Civil Engineer that the project has been completed in accordance with submitted final plans and specifications and any modifications thereto and in accordance with this Grant Agreement and to the State's satisfaction.

D.16 GOVERNING LAW: This Grant Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

D.17 GRANTEE COMMITMENTS: Grantee accepts and agrees to comply with all terms, provisions, conditions, and commitments of this Funding Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by Funding Recipient in the application, documents, amendments, and communications filed in support of its request for California Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Act of 2006 financing.

D.18 INCOME RESTRICTIONS: The Grantee agrees that any refunds, rebates, credits, or other amounts (including any interest thereon, accruing to or received by the Grantee under this Grant Agreement shall be paid by the Grantee to the State, to the extent that they are properly allocable to costs for which the Grantee has been reimbursed by the State under this Grant Agreement.

D.19 INDEPENDENT CAPACITY: Grantee, and the agents and employees of Grantee, if any, in the performance of the Grant Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State.

D.20 INSPECTIONS: State shall have the right to inspect the work being performed at any and all reasonable times, providing a minimum of a 24-hour notice, during the term of the Grant Agreement. This right shall extend to any local project sponsor, subagreements, and Grantee shall include provisions ensuring such access in all its contracts or sub-contractors entered into pursuant to its Grant Agreement with State. Grantee acknowledges that Project documents may be subject to the Public Records Act (California Government Code Section 6250 *et seq.*). State shall have the right to inspect these documents at any and all reasonable times after completion of the Project to ensure compliance with the terms and conditions of

this Grant Agreement. During regular office hours, State shall have the right to inspect and to make copies of any books, records, or reports of the Grantee relating to this Grant Agreement. Grantee shall maintain and shall make available at all times for such inspection accurate records of its costs, disbursements, and receipts with respect to its activities under this Grant Agreement. Failure or refusal by Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and State may withhold disbursements to Grantee or take any other action it deems necessary to protect its interests.

D.21 NONDISCRIMINATION: During the performance of this Grant Agreement, Grantee and its contractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave. Grantee and contractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Grantee and contractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12990 (a-f) *et seq.*) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 *et seq.*). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Grant Agreement by reference and made a part hereof as if set forth in full. Grantee and its contractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. Grantee shall include the nondiscrimination and compliance provisions of this clause in all contracts to perform work under the Grant Agreement.

D.22 NO THIRD PARTY RIGHTS: The parties to this Grant Agreement do not intend to create rights in, or grant remedies to, any third party as a beneficiary of this Grant Agreement, or of any duty, covenant, obligation or undertaking established herein.

D.23 OPINIONS AND DETERMINATIONS: The parties agree that review or approval of any IRWM Program applications, documents, permits, plans and specifications or other program information by the State is for administrative purposes only and does not relieve the Grantee of its responsibility to properly plan, design, construct, operate, maintain, implement, or otherwise carry out the IRWM Program.

D.24 PERMITS, LICENSES, APPROVALS, AND LEGAL OBLIGATIONS. Grantee shall be responsible for obtaining any and all permits, licenses, and approvals required for performing its obligations under this Grant Agreement. Grantee shall comply with the California Environmental Quality Act (PRC Section 21000 *et seq.*) and other applicable federal, State, and local laws, rules, and regulations, guidelines, and requirements prior to disbursement of funds under this Grant Agreement.

Without limiting the foregoing, Funding Recipient shall keep informed of and take all measures necessary to ensure compliance with California Labor Code requirements, including but not limited to Section 1720 *et seq.* of the California Labor Code regarding public works, limitations on use of volunteer labor (California Labor Code Section 1720.4), labor compliance programs (California Labor Code Section 1771.5), and payment of prevailing wages for work done under this Funding Agreement. Pursuant to the provisions of Proposition 84, the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006, Cal. Pub. Res. Code § 75076 *et seq.*, the Funding Recipient must have a labor compliance program that meets the requirements of California Labor Code Section 1771.5.

D.25 PROHIBITION AGAINST DISPOSAL OF PROJECT WITHOUT STATE PERMISSION: Grantee and Local Project Sponsors shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the IRWM Program without prior permission of State. Grantee and Local Project Sponsors shall not take any action concerning the performance of this Grant Agreement, including but not limited to actions relating to user fees, charges, and assessments that could adversely affect the ability of Grantee to meet its obligations under this Grant Agreement, without prior written permission of State. State may require that the proceeds from the disposition of any real or personal property acquired with funds disbursed under this Grant Agreement be remitted to State.

- D.26 REMEDIES, COSTS, AND ATTORNEY FEES:** The Grantee agrees that any remedy provided in this Grant Agreement is in addition to and not in derogation of any other legal or equitable remedy available to the State as a result of breach of this Grant Agreement by the Grantee, whether such breach occurs before or after completion of the Project, and exercise of any remedy provided by this Grant Agreement by the State shall not preclude the State from pursuing any legal remedy or right which would otherwise be available. In the event of litigation between the parties hereto arising from this Grant Agreement, it is agreed that the prevailing party shall be entitled to such reasonable costs and/or attorney fees as may be ordered by the court entertaining such litigation.
- D.27 RETENTION:** Notwithstanding any other provision of this Grant Agreement, State shall, for each project, withhold five percent (5.0%) until January 1, 2016 and ten percent (10.0%), thereafter, of the funds requested by Grantee for reimbursement of Eligible Costs. Each project in this Grant Agreement will be eligible to release its respective retention when that project is completed and Grantee has met requirements of Paragraph 17, "Submissions of Reports" as follows. At such time as the "Project Completion Report" required under Paragraph 17 is submitted to and approved by State, State shall disburse the retained funds as to that project to Grantee, except in the case of the last project to be completed under this Grant Agreement, in which case retention for such project will not be disbursed until the "Grant Completion Report" is submitted to and approved by State.
- D.28 RIGHTS IN DATA:** To the extent permitted by law, the Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes, and other written or graphic work produced in the performance of this Grant Agreement shall be in the public domain. The Grantee may disclose, disseminate and use in whole or in part, any final form data and information received, collected, and developed under this Grant Agreement, subject to appropriate acknowledgement of credit to the State for financial support. The Grantee shall not utilize the materials for any profit-making venture or sell or grant rights to a third party who intends to do so.
- D.29 SEVERABILITY OF UNENFORCEABLE PROVISION:** If any provision of this Grant Agreement is held invalid or unenforceable by a court of final jurisdiction, all other provisions of this Grant Agreement shall be construed to remain fully valid, enforceable, and binding on the parties.
- D.30 STATE REVIEWS AND INDEMNIFICATION:** The parties agree that review or approval of Project applications, documents, permits, plans and specifications or other Project information by the State is for administrative purposes only and does not relieve the Grantee or Local Project Sponsors of their responsibility to properly plan, design, construct, operate, maintain, implement, or otherwise carry out the Project. To the extent permitted by law, the Grantee and Local Project Sponsors agree to indemnify, defend and hold harmless the State and the State against any loss or liability arising out of any claim or action brought against the State from and against any and all losses, claims, damages, liabilities or expenses, of every conceivable kind, character and nature whatsoever arising out of, resulting from, or in any way connected with:
- a) The Project or the conditions, occupancy, use, possession, conduct or management of, work done in or about, or the planning, design, acquisition, installation, or construction, of the Project or any part thereof;
 - b) Performing any of the terms contained in this Grant Agreement or any related document;
 - c) Any violation of any applicable law, rule or regulation, any environmental law (including, without limitation, the Federal Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, the California Hazardous Substance Account Act, the Federal Water Pollution Control Act, the Clean Air Act, the California Hazardous Waste Control Law and CWC Section 13304, and any successors to said laws), rule or regulation or the release of any toxic substance on or near the natural water system; or
 - d) Any untrue statement or alleged untrue statement of any material fact or omission or alleged omission to state a material fact necessary to make the statements required to be stated therein, in light of the circumstances under which they were made, not misleading with respect to any information provided by the Grantee for use in any disclosure document utilized in connection with any of the transactions contemplated by this Grant Agreement. Grantee agrees to pay and discharge any judgment or award entered or made against the State with respect to any such claim or action, and any settlement,

compromise or other voluntary resolution. The provisions of this section shall survive the term of the Grant Agreement.

- D.31 SUCCESSORS AND ASSIGNS:** This Grant Agreement and all of its provisions shall apply to and bind the successors and assigns of the parties. No assignment or transfer of this Grant Agreement or any part thereof, rights hereunder, or interest herein by the Grantee shall be valid unless and until it is approved by State and made subject to such reasonable terms and conditions as State may impose.
- D.32 TIMELINESS:** Time is of the essence in this Grant Agreement.
- D.33 TRAVEL:** Grantee agrees that travel and per diem costs shall NOT be eligible for reimbursement with State funds, and shall NOT be eligible for computing Grantee cost match. Travel includes the costs of transportation, subsistence, and other associated costs incurred by personnel during the term of this Grant Agreement.
- D.34 WAIVER OF RIGHTS:** None of the provisions of this Grant Agreement shall be deemed waived unless expressly waived in writing. It is the intention of the parties here to that from time to time either party may waive any of its rights under this Grant Agreement unless contrary to law. Any waiver by either party of rights arising in connection with the Grant Agreement shall not be deemed to be a waiver with respect to any other rights or matters, and such provisions shall continue in full force and effect.

EXHIBIT E
REPORT FORMAT AND REQUIREMENTS

The following reporting formats should be utilized. Please obtain State approval prior to submitting a report in an alternative format.

QUARTERLY PROGRESS REPORT

Grantee shall submit Quarterly Progress Reports on a consistent basis to meet the State's requirement for disbursement of funds. The quarterly progress report should describe the work performed during the reporting period. For each project, describe the work performed including:

CONTINUING ELIGIBILITY

- A brief summary of the status of adoption of an IRWM Plan that complies with Part 2.2 of Division 6 of the CWC commencing with Section 10530.
- In areas that receive water supplied from the Sacramento-San Joaquin Delta, the IRWM Plan must reduce dependence on the Sacramento-San Joaquin Delta for water supply (SB 855 (Stats. 2010) Section 31(c)(1)(B)).
- Discuss the reasonable and feasible efforts to engage DAC into your IRWM efforts in regards to planning and projects that support their critical water supply or water quality needs.

PROJECT INFORMATION (INCLUDE ANY OF THE BELOW THAT WERE APPLICABLE DURING THE REPORTING PERIOD)

- Legal matters.
- Engineering matters.
- Environmental matters.
- Status of permits, easements, rights-of-way, and approvals as may be required by other State, federal, and/or local agencies.
- Major accomplishments during the quarter (i.e. tasks completed, milestones met, meetings held or attended, press releases, etc).
- Discussion of data submittal effort(s) for the previous quarter, including a description of the data submitted and date(s) of submittal.
- Issues/concerns that have, will, or could affect the schedule or budget, with a recommendation on how to correct the matter.
- Description of any differences between the work performed and the work outlined in the project work plans.
- Description of any efforts to update IRWM Plan to obligations listed in Paragraph 12, "Continuing Eligibility, if applicable."

COST INFORMATION

- Provide a List showing all costs incurred during the quarter by the grantee, the Local Project Sponsor overseeing the work, and each contractor working on the project. The list should include for all non-construction, or implementation costs, (i.e., design, and admin charges) the hours per task worked on during the quarter for above personnel.
- A discussion on how the actual budget is progressing in comparison to the project budget included in the Work Plan.
- A revised budget, including an explanation of why the revisions were necessary, by task, if changed from latest budget shown in Appendix C, Budget. Note, a revised budget may require an official amendment to the Agreement before it is accepted as final.

SCHEDULE INFORMATION

- A schedule showing actual progress versus planned progress as shown in Exhibit B.
- A discussion on how the actual schedule is progressing in comparison to the schedule in Exhibit B.
- A revised schedule, by task, if changed from latest schedule in Exhibit B. Note, a revised schedule may require an official amendment to the Agreement before it is accepted as final.

ANTICIPATED ACTIVITIES NEXT QUARTER

- Provide a description of anticipated activities for the next quarterly reporting period.

PROJECT COMPLETION REPORT

A Project Completion Report is required for each project identified in the Work Plan, Exhibit A. This report will include the following Sections:

EXECUTIVE SUMMARY

The Executive Summary consists of a maximum of ten (10) pages summarizing project information (see report status section below for topics). The Executive Summary should include the following:

- Brief description of work proposed to be done in the original Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 IRWM Implementation Grant application.
- Description of actual work completed and any deviations from the work plan identified in the Grant Agreement. List any official amendments to the Agreement, with a short description of the amendment.
- Describe the mechanism or process that allows for continued performance monitoring of the projects in meeting the objectives of the IRWM Plan.

REPORTS AND/OR PRODUCTS

- Provide a copy of any final technical report or study, produced for this project as described in the Work Plan, if applicable.
- Provide a map and shapefile(s) showing the location of the completed project. A description of the geographic projection and datum used for the shapefile must be submitted with the shapefile (a NAD '83 datum and either a UTM 10 or UTM 11 projection, dependent on the project's location in the state, should be utilized).
- If any wells were constructed as part of the project, provide the following information: well logs; borehole geophysical logs; state well number; site information to include horizontal (NAD '83) and vertical (NAVD '88) datum to be determined within 0.5 feet.
- Provide an electronic copy of any as-built plans (media: CD-ROM; PDF format).
- Provide copies of any data collected along with location maps.
- If applicable, describe the findings of any study and whether the study determined the engineering, hydrologic, hydrogeologic, environmental, economic and financial feasibility of the project.
- If applicable, a discussion of the critical water supply or water quality benefits to DAC as part of this Grant Agreement.

COST & DISPOSITION OF FUNDS INFORMATION

- A list of invoices showing:
 - The date each invoice was submitted to State.
 - The amount of the invoice.
 - The date the check was received.
 - The amount of the check (If a check has not been received for the final invoice, then state this in this section).

- A spreadsheet summary of the original budget costs by task versus the final project costs
- A summary of final funds disbursement including:
 - Labor cost of personnel of agency/ major consultant /sub-consultants (Indicate personnel, hours, rates, type of profession and reason for consultant, i.e., design, CEQA work, etc).
 - Construction cost information, shown by material, equipment, labor costs, and change orders.
 - Any other incurred cost detail.
 - A statement verifying separate accounting of grant disbursements.
- Summary of project cost including:
 - Accounting of the cost of project expenditure.
 - Include all internal and external costs not previously disclosed.
 - A discussion of factors that positively or negatively affected the project cost and any deviation from the original project cost estimate.

ADDITIONAL INFORMATION

- Benefits derived from the project, with quantification of such benefits provided, if applicable.
- A final project schedule showing actual progress verse planned progress.
- Certification from a California Registered Civil Engineer that the project was conducted in accordance with the approved work plan and any approved modifications thereto.
- Submittal schedule for the Post Performance Report and an outline of the proposed reporting format.

GRANT COMPLETION REPORT

The Grant Completion Report shall generally use the following format. This format may be modified as necessary to effectively communicate information on the various projects in the IRWM Program funded by this Grant Agreement, and includes the following:

EXECUTIVE SUMMARY

The Executive Summary consists of a maximum of twenty (20) pages summarizing information for the grant as well as the individual projects.

REPORTS AND/OR PRODUCTS

- Summary of the regional priorities, objectives, and water management strategies of the IRWM Plan.
- Brief comparison of work proposed in the original Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 IRWM Implementation Grant application and actual work done.
- Brief description of the projects completed and how they will further the goals identified in the Agency's final approved IRWM Plan.
- Describe how the implemented projects will meet the regional priorities identified in the final approved IRWM Plan and how the projects contribute to regional integration.
- Identify remaining work and mechanism for their implementation.
- Identify any changes to the IRWM Plan as result of project implementation.
- Short description of the two year IRWM Plan update and the date when the updated Plan was submitted to DWR.
- If applicable, a short discussion on how the IRWM Plan will assist in reducing dependence on Delta water supplies.
- A discussion of the critical water supply or water quality benefits to DAC as part of this Grant Agreement

COST & DISPOSITION OF FUNDS INFORMATION

- A summary of final funds disbursement for each project.

ADDITIONAL INFORMATION

- A final schedule showing individual project's actual progress duration verse planned progress.
- Certification from a California Registered Civil Engineer that the Program was conducted in accordance with the approved work plan and any approved modifications thereto. Discussion of the synergies of the completed projects, including the integration of project benefits and a comparison of actual benefits versus those discussed in the original proposal.
- Submittal schedule for the Post Performance Reports for each of the projects in this Grant Agreement.

POST-PERFORMANCE REPORT

Post Performance Report is required annually for every project for a period of 10 years beginning after the first year of operation, and includes the following:

REPORTS AND/OR PRODUCTS

- Time period of the annual report, i.e., Oct 2014 through September 2015.
- Short project description.
- Brief discussion of the project benefits to water quality, water supply, and the environment.
- An assessment of any explanations for any differences between the expected versus actual project benefits in meeting IRWM priorities as stated in the original IRWM Implementation Grant application. Where applicable, the reporting should include quantitative metrics, i.e., new acre-feet of water produced that year, acres of wildlife habitat added, etc.
- Summary of any additional costs and/or benefits deriving from the project since its completion, if applicable.
- Continued reporting on meeting the Output Indicators and Targets discussed in the Project Monitoring Plan discussed in Paragraph 22 of this Grant Agreement.
- Any additional information relevant to or generated by the continued operation of the project.

ELECTRONIC REPORT FORMATTING

Grantee agrees that work funded under this Grant Agreement will be provided in an electronic format to State. Electronic submittal of final reports, plans, studies, data, and other work performed under this grant shall be as follows:

- Text preferably in MS WORD or text PDF format.
- Files generally less than 10 MB in size.
- Files named so that the public can determine their content. For example, file naming of reports must have the title and, if subdivided into smaller sized files, the chapter number/letter and names in the report Table of Content (TOC); files of maps, figures, and tables by number/letter as referenced in the TOC; well logs files with DWR-required naming convention; and Appendix number/letter and named in the TOC.
- For projects involving a modeling component, grantee shall provide the major input data files, parameters, calibration statistics, output files, and other information requested by State's Project Manager.

EXHIBIT F
LOCAL PROJECT SPONSORS

LOCAL PROJECT SPONSORS

Grantee has assigned, for each project, a Local Project Sponsor according to the roles of the participating agencies identified in the IRWM Plan. Local Project Sponsors may act on behalf of Grantee for the purposes of individual project management, oversight, compliance, and operations and maintenance. Local Project Sponsors are identified for each Sponsored Project below:

Local Sponsor Agency Designations		
Sponsored Project	Sponsor Agency	Agency Address
Project 1 - City of Roseville ASR Program – Phase 2	City of Roseville	2005 Hilltop Circle Roseville, CA 95747
Project 2 - Secret Ravine Fish Passage Improvement Project	City of Roseville and Dry Creek Conservancy	2005 Hilltop Circle Roseville, CA 95747
Project 3 - E. A. Fairbairn Groundwater Well	City of Sacramento	1395 35th Avenue Sacramento, CA 95822
Project 4 - Shasta Park Reservoir and Well Project	City of Sacramento	1395 35th Avenue Sacramento, CA 95822
Project 5 - Antelope Creek Integrated Flood Control Improvement Project	Placer County Flood Control and Water Conservation District	3091 County Center Drive, Suite 220 Auburn, CA 95603
Project 6 - Regional Water Meter Retrofit Acceleration Project	Regional Water Authority	5620 Birdcage Street, Suite 180 Citrus Heights, CA 95610
Project 7 - Regional Indoor and Outdoor Water Efficiency Project	Regional Water Authority	5620 Birdcage Street, Suite 180 Citrus Heights, CA 95610
Project 8 - Recycled Water for the SMUD Co-Generation Facility	Sacramento Regional County Sanitation District (SRCSD)	10060 Goethe Road Sacramento, CA 95827
Project 9 - North Antelope Booster Pump Station	Sacramento Suburban Water District	3701 Marconi Ave #100 Sacramento, CA 95821-5346
Project 10 - Coyle Avenue and Roseview Park Pump Stations and	Sacramento Suburban Water District	3701 Marconi Ave #100 Sacramento, CA 95821-5346

Water Treatment Systems Project		
Project 11 - Willow Hill Pipeline Rehabilitation Project	City of Folsom	50 Natoma Street Folsom, CA 95630
Project 12 - Aquatic and Riparian Habitat Enhancement in the Lower American River at River Mile 0.5R	Sacramento Area Flood Control Agency	1007 7th Street, 7th Floor Sacramento, CA 95814
Project 13 - Lower Cosumnes River Floodplain Restoration Project	Ducks Unlimited	3074 Gold Canal Drive Rancho Cordova, CA 95670
Project 14 - Lower Cosumnes River Integrated Groundwater Recharge Project	Omochumne-Hartnell Water District	P.O. Box 211 Wilton, CA 95693
Project 15 - Sleepy Hollow Detention Basin Retrofit	City of Elk Grove	8401 Laguna Palms Way Elk Grove, CA 95758
Project 16 - Antelope Creek Integrated Water Efficiency Project	Placer County Water Agency	144 Ferguson Rd Auburn, CA 95603
Project 17 - Lower Cosumnes River Integrated Groundwater Recovery Project	Rancho Murieta Community Services District	15160 Jackson Road Rancho Murieta, CA 95683

EXHIBIT G
REQUIREMENTS FOR DATA SUBMITTAL

SURFACE AND GROUNDWATER QUALITY DATA:

Groundwater quality and ambient surface water quality monitoring data that include chemical, physical, or biological data shall be submitted to the State as described below, with a narrative description of data submittal activities included in project reports, as described in Exhibit E.

Surface water quality monitoring data shall be prepared for submission to the California Environmental Data Exchange Network (CEDEN). The CEDEN data templates are available on the CEDEN website. Inclusion of additional data elements described on the data templates is desirable. Data ready for submission should be uploaded to your CEDEN Regional Data Center via the CEDEN website. CEDEN website:
<http://www.ceden.org>.

If a project's Work Plan contains a groundwater ambient monitoring element, groundwater quality monitoring data shall be submitted to the State for inclusion in the State Water Resources Control Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program Information on the GAMA Program can be obtained at: http://www.waterboards.ca.gov/water_issues/programs/gama/. If further information is required, the Grantee can contact the State Water Resources Control Board (SWRCB) GAMA Program. A listing of SWRCB staff involved in the GAMA program can be found at:
http://www.swrcb.ca.gov/water_issues/programs/gama/contact.shtml

GROUNDWATER LEVEL DATA

For each project that collects groundwater level data, Grantee will need to submit this data to DWR's Water Data Library (WDL), with a narrative description of data submittal activities included in project reports, as described in Exhibit E. Information regarding the WDL and in what format to submit data in can be found at:
<http://wdl.water.ca.gov/>.

In the near future, DWR's WDL will be replaced by the California Statewide Groundwater Elevation Monitoring program (CASGEM). Once this Program comes online Grantee will then submit groundwater level data to CASGEM. Information regarding the CASGEM program can be found at:
<http://www.water.ca.gov/groundwater/casgem/>

Exhibit H
State Audit Document Requirements and Guidelines for Grantees
Under DWR Financial Assistance Programs

The following provides a list of documents typically required by State Auditors and general guidelines for Grantees. List of documents pertains to both Grant funding and Grantee's Funding Match and details the documents/records that State Auditors would need to review in the event of this Grant Agreement is audited. Grantees should ensure that such records are maintained for each funded project.

List of Documents for Audit

Internal Controls:

1. Organization chart (e.g., Agency's overall organization chart and organization chart for this Grant Agreement's funded projects).
2. Written internal procedures and flowcharts for the following:
 - a. Receipts, deposits and disbursements
 - b. State reimbursement requests
 - c. Grant expenditure tracking
 - d. Guidelines, policy, and procedures on grant funded Program/Project
3. Audit reports of the Agency internal control structure and/or financial statements within the last two years.
4. Prior audit reports on grant funded Program/Project.

Agreements and Contracts:

1. Original signed Grant Agreement, any amendment(s) and budget modification documents.
2. A listing of all bond-funded grants received from the State.
3. A listing of all other funding sources for each project.
4. All subcontractor and consultant contracts and related or partners documents, if applicable.
5. Contracts between the Agency and member agencies as related to this grant agreement.

Invoices:

1. Invoices from vendors and subcontractors for expenditures submitted to the State for payments under this Grant Agreement.
2. Documentation linking subcontractor invoices to State reimbursement, requests and related budget line items under this Grant Agreement.
3. Reimbursement requests submitted to the State for this Grant Agreement.

Cash Documents:

1. Receipts (copies of warrants) showing payments received from the State.
2. Deposit slips (or bank statements) showing deposit of the payments received from the State.
3. Cancelled checks or disbursement documents showing payments made to vendors, subcontractors, consultants, and/or agents under this Grant Agreement.
4. Bank statements showing the deposit of the receipts.

Accounting Records:

1. Ledgers showing entries for receipts and cash disbursements.
2. Ledgers showing receipts and cash disbursement entries of other funding sources.
3. Bridging documents that tie the general ledger to requests for grant reimbursement.

Administration Costs: Supporting documents showing the calculation of administration costs.

Personnel:

1. List of all contractors and Agency staff that worked on this grant funded Program/Project.
2. Payroll records including timesheets for contractor staff and the Agency personnel who provided services charged to this Grant Agreement.

Project Files:

1. All supporting documentation maintained in the project files.
2. All correspondence related to this Grant Agreement.

General Grant Agreement Guidelines

Amendment Requirements:

Amendments to the Work Plan, Budget, and/or Schedule of this Grant Agreement are triggered when the proposed changes are deemed by the State to be substantial. Substantial changes generally include changes to the wording/scope of work, schedule or term, and budget. For example, a formal budget change to an Agreement is required when the culmination of the proposed Grant amount budget change(s) for a Task is greater than 10% of the original Grant amount budget for that particular Task or the Task to be exchanged.

Funding Match Contribution

Funding Match (often referred to as Grantee Cost Share) is the amount defined in Paragraph 4 of this Agreement. Funding Match consists of non-State funds including in-kind services. In-kind services are defined as work performed (i.e., dollar value of non-cash contributions) by the Grantee (and potentially other parties involved) directly related to the execution of the scope of work (examples: volunteer services, equipment use, and facilities). The cost of which in-kind service is valued can counted as funding match in-lieu of actual funds (or revenue) provided by the Grantee. Other funding match and in-kind service eligibility conditions apply (see paragraph 9). Provided below is guidance for claiming funding match with and without in-kind services.

1. Adequate documentation supporting value of in-kind service (or volunteer service) as funding match claimed shall be maintained. Although tracked separately, in-kind services shall be documented and, to the extent feasible, supported by the same methods used by the Grantee for its own employees. Provide formal (on official letterhead) and substantial documentation of in-kind service by including the following:
 - o Describe contributed item(s) or service(s)
 - o Purpose for which contribution was made (tie to scope of work)
 - o Name of contributing organization and date of contribution
 - o Real or approximate value of contribution. Who valued the contribution and how was the value determined? (e.g., actual, appraisal, fair market value, etc.). Justification of rate. (see item #4, below)
 - o Person's name and function of the contributing person
 - o Hours of contribution
 - o If multiple sources exist, summarize these on a table with summed charges
 - o Was contribution provided by, obtained with, or supported by government funds? If so, indicate source.
2. Funding match contribution (including in kind services) shall be for costs and services directly attributed to activities included in this Grant Agreement Work Plan. These services, furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as in-kind if the activities are an integral and necessary part of this Grant Agreement. Evaluate eligibility with DWR Project Manager in advance of submittal.
3. Do not track cash contributions made to a project as an expenditure as you would for an in-kind service. When providing funding match, track cash contributions to the Project (i.e. revenues) and expenditures (typically in-kind contribution) separately in an accounting system.
4. Rates for volunteer or in-kind services shall be consistent with those paid for similar work in the Grantee organization. For example, volunteer service of clearing vegetation performed by an attorney shall be valued at a fair market value for this service, not the rate for professional legal services. In those instances in which the required skills are not found in the recipient organization, rates shall be consistent with those paid for similar work in the labor market. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

**EXHIBIT I
GRANTEE RESOLUTION**

**RESOLUTION NO. 2011-01
A RESOLUTION OF THE REGIONAL WATER AUTHORITY BOARD OF
DIRECTORS AUTHORIZING SUBMITTAL OF AN INTEGRATED REGIONAL
WATER MANAGEMENT IMPLEMENTATION GRANT APPLICATION
AND ENTERING INTO A GRANT AGREEMENT**

WHEREAS, the Regional Water Authority ("Authority") was formed to serve and represent regional water supply interests and to assist in protecting and enhancing the reliability, availability, affordability and quality of water resources; and

WHEREAS, the Authority has committed to preparing and implementing an Integrated Regional Water Management Plan ("IRWMP") to ensure maintaining water supplies for all uses in a sustainable environment; and

WHEREAS, the Authority adopted the American River Basin IRWMP in May 2006 and is completing a comprehensive update to ensure compliance with revised IRWMP guidelines released by the California Department of Water Resources in July 2010;

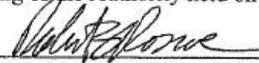
WHEREAS, the Authority is a public agency that serves as the Regional Water Management Group representing numerous stakeholders and interests throughout the region; and

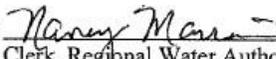
WHEREAS the Authority has conducted extensive stakeholder outreach to identify priority IRWMP projects that provide multiple, integrated benefits throughout the region;

NOW, THEREFORE, be it resolved by the Board of Directors of the Authority as follows:

1. The Executive Director of RWA is hereby authorized and directed to prepare the necessary data, make investigations, execute and file an application with the California Department of Water Resources to obtain an Integrated Regional Water Management Implementation Grant pursuant to the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Public Resources Code Section 75001 *et seq.*).
2. The Executive Director of RWA is hereby authorized to enter into an agreement with the California Department of Water Resources to accept the grant.

PASSED AND ADOPTED at a meeting of the Authority held on January 13, 2011.

By: 
Chair, Regional Water Authority

Attest: 
Clerk, Regional Water Authority

SPECIAL PROVISIONS

SPECIAL PROVISIONS
FOR
FAIRBAIRN WATER TREATMENT PLANT GROUNDWATER WELL
Z14120200

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SECTION 1 GENERAL INFORMATION AND REQUIREMENTS

1.01 Summary of Work to be Performed

- A. The work to be performed under this Contract consists of furnishing all labor, materials and equipment for the construction, development and testing of **one (1) municipal water supply well, with a design capacity of 3,000 gpm**, including but not limited to site preparation, conductor casing and sanitary seal, borehole drilling, geophysical logging, temporary zone sampling and water quality sampling, casing installation, gravel envelope placement, transition and annular seals, well development and testing, disinfection, and/or other work as necessary to complete the project as described in the Plans and Specifications. The borehole depth is approximately 320 feet below ground surface.
- B. Contractor shall provide all work, materials, and services necessary for the complete and proper construction of the work in good faith, **including items not expressly shown or called for in the Contract documents**. The Contractor shall incorporate all costs associated with the complete and proper construction of the work in good faith into the Contractor's bid prices for the work. No additional compensation will be paid for the complete and proper construction of the work in good faith.

1.02 Fulfillment of Project Purpose

- A. The purpose of this project is to provide municipal water supply to the City of Sacramento.
- B. The completed project shall be suitable for the intended purpose(s).
- C. The completed project shall meet the performance requirements of the Contract.
- D. If at any time the Contractor believes that the project as designed will not fulfill the intended purpose, or will not meet the performance requirements, the Contractor shall notify the City in writing. Contractor shall include all relevant information and shall provide a detailed explanation of the Contractor's concerns and recommended alternatives to achieve project objectives and performance requirements.

1.03 Project Location

- A. The project is located at the E.A. Fairbairn Water Treatment Plant at the intersection of College Town Drive and State University Drive in Sacramento, California.
- B. Sheet 1 of the Plans show the location of the project site and proposed position of the well within the Water Treatment Plant.

1.04 Interpretation of Contract Documents

- A. Questions from bidder's concerning the interpretation of any portion of the contract documents may be directed to Mark Elliott of the City of Sacramento, Department of Utilities, 1395 35th Ave, Sacramento, California, 95822, phone (916) 808-8894; Fax (916)808-1497; Email melliott@cityofsacramento.org

- B. The Consulting Engineer for the project is Wood Rodgers, Inc.; 3301 C Street, Building 100-B; Sacramento, CA 95816; Contact: Larry Ernst; Phone: (916) 341-7447; Mobile: (916) 417-7687; Fax: (916) 341-7767. The Consulting Engineer will be providing specialized construction inspection for this project on behalf of the City.
- C. Interpretation, where necessary, will be made by the City in the form of an addendum to the contract documents and, when issued, will be sent as promptly as is practicable to all parties to whom the bid documents have been issued. All such addenda shall become part of the contract.
- D. It shall also be the bidder's responsibility to call to the attention of the Engineer any missing pages or drawings in the contract documents, including the addenda. These items shall be brought to the attention of the Engineer at least one (1) week prior to the bid opening date.

1.05 Conformance with Codes and Standards

- A. The work to be performed under this contract shall be done in accordance with the Special Provisions contained herein. In these Special Provisions, reference is made to the Standard Specifications of the City of Sacramento, adopted June 2007, referred to herein as "City Standard Specifications". Included in this reference are all issued addendums. Reference may also be made to the State of California, Department of Transportation, Standard Specifications referred herein as "State Standard Specifications".
- B. The general requirements of this contract shall be governed by these Special Provisions first, followed by Sections 1 through 8 of the City Standard Specifications. Other Standards or Specifications specified in these Special Provisions govern only the applicable technical specifications.
- C. All work and materials shall comply with the California Department of Water Resources' California Water Well Standards Bulletin 74-84, and its supplement Bulletin 74-90.
- D. All work and materials shall comply with applicable federal, state, and local codes, laws, and regulations.
- E. Should the Contractor discover any discrepancies between these Plans and Specifications and applicable codes, laws, and regulations, the Contractor shall bring them to the attention of the City immediately.

1.06 Governing Documents

- A. All work performed under this contract shall be in accordance with the following general requirements:
 - (1) Sealed Proposal
 - (2) Agreement
 - (3) City Standard Specifications - Sections 1 through 8
- B. All work performed under this contract shall be in accordance with the following provisions:

- (1) Special Provisions
- (2) Contract Plans
- (3) City Standard Specifications - Sections 10 through 38
- (4) California Labor Code - Chapter 4 of Division 3

C. In the event of a conflict in the Contract Documents, the governing priorities, when appropriate, shall be in accordance with section 5-3 of the City Standard Specifications.

1.07 Payment for Compliance with Contract Requirements

- A. Direct payment shall only be made for the items listed in the Bid Schedule, in accordance with the specified measurement and payment of each item. No direct payment shall be made for items not listed in the Bid Schedule.
- B. All costs associated with fulfilling the requirements of this Contract, but not directly related to a specific bid item, shall be incorporated into the Contractor's Bid Price for "Bid Item No. 1 – Mobilization".

1.08 Right to Cancel Work

- A. At any time, the City may cancel part or all of the work under this Contract by written notice to the Contractor.
- B. Upon receipt of written notice to cancel work, the Contractor shall immediately cease all work on the project, unless otherwise authorized by the City in writing.
- C. The Contractor shall not be paid for work not performed. The Contractor shall be compensated for work performed prior to receipt of written notice to cancel work, unless otherwise authorized by the City in writing. Compensation for work performed shall be in accordance with this Contract.

1.09 Proof of Compliance with Contract

- A. In order that the Engineer may determine whether the Contractor has complied with the requirements of the contract documents not readily determinable through inspection and tests of plant, equipment, work, or materials, the Contractor shall at any time when requested, at the Contractor's expense, submit to the Engineer properly authenticated documents or other satisfactory proofs as to his compliance with such requirements.

1.10 Manufacturer's Instructions

- A. Contractor shall provide and comply with manufacturer's installation instructions and procedures in accordance with Section 5-16 of the City Standard Specifications.

1.11 Equipment to be Supplied

- A. All equipment, material and supplies called for on the Plans and Specifications shall be new and currently manufactured items, unless otherwise specified.

- B. All equipment shall be complete and in operation to the satisfaction of the Engineer at the time of acceptance of the work.

1.12 Same Superintendent and Work Crew Required

- A. In addition to Contractor's obligations to utilize competent and skilled workers and to remove unsatisfactory workers as specified in Section 7-6 of the Standard Specifications, Contractor shall maintain the same Superintendent and work crew on the job site throughout performance of the Contract, and Contractor shall not change Contractor's Superintendent and/or work crew prior to completion of the Work unless approved in writing by the Engineer prior to such change; provided that the Engineer's approval shall not be required for Contractor to replace employees terminated by Contractor.

1.13 City Ordinance Related to Construction Work

- A. The City has adopted an ordinance amending Chapter 12.20 of the City Code that establishes additional minimum requirements and restrictions relating to construction activities within the City limits and establishes administrative penalties associated with non-compliance of these requirements. The ordinance includes the following general categories:

- (1) Working hours for the City's "Primary Streets"
- (2) Traffic control plan requirements
- (3) Access to private property
- (4) Maintenance of construction areas
- (5) Repair of traffic control systems
- (6) Care of existing known facilities
- (7) Public notification
- (8) Noise levels
- (9) Administrative Penalties

Copies of the ordinance are available from the City Clerk's Office, 915 I Street, Sacramento, CA 95814, or online at <http://www.qcode.us/codes/sacramento/> .

SITE CONDITIONS

1.14 Local Geology

- A. The geology beneath the well site is separated into three distinct units: Recent deposits (alluvium; possibly the Riverbank Formation); the Laguna Formation; and the Mehrten Formation. The alluvium deposits extend from ground surface to a depth of approximately 30 feet and consist of stream channel and floodplain basin deposits, including sand, gravel, large cobbles, silt, and clay. The Laguna Formation underlies the alluvium deposits and consists of interbedded layers of brown sand, gravel, silt, and clay. The Laguna Formation occurs from approximately 30 feet to 320 feet. The Mehrten Formation consists of distinctive black sands interbedded with gravel and blue or brown clay. The Mehrten Formation will not be penetrated within the

borehole as shown in Sheet 3. Static water level is expected to be approximately 40 feet below ground surface.

1.15 Difficult Drilling Conditions

- A. Known difficult drilling conditions in the project vicinity include:
 - (1) Gravel and large cobbles.
 - (2) Mudstone.
- B. The Contractor shall be responsible for reviewing local records and identifying difficult drilling conditions that could be encountered in this area. The Contractor shall incorporate all costs associated with difficult drilling conditions into the bid price for “Bid Item No. 3 – Borehole Drilling”. No additional compensation will be paid for difficult drilling conditions.

1.16 Unusual Site Conditions

- A. The Contractor shall notify the City immediately if the Contractor suspects or detects that the site contains:
 - (1) Hazardous waste.
 - (2) Material the Contractor believes may be hazardous.
 - (3) Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract documents.
 - (4) Unknown physical conditions at the site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

SECTION 2 SITE REQUIREMENTS

2.01 Site Access

- A. The City has obtained the necessary legal right-of-way for the project.
- B. The City will provide the Contractor with access to the project site for the purpose of performing work under this Contract.
- C. Contractor’s use of the project site shall be limited to activities associated with performing work under this Contract.

2.02 Area for Construction

- A. The Contractor shall confine all construction activities to the subject parcel, adjacent easements, and public right-of-way.
- B. The Contractor shall not encroach onto private property without the prior written permission of the property owner.

2.03 Health and Safety

- A. The Contractor shall be solely and completely responsible for conditions of the job site, including the health and safety of all persons (including employees, subcontractors, service personnel, and site visitors) and property during performance of the work. This requirement shall apply continuously and shall not be limited to normal working hours.
- B. Health and safety provisions shall conform to U.S. Safety Orders, Title 8, U.S. Environmental Protection Agency Standard Operations Safety Guides; Safety Orders of the Division of the Industrial Safety of the State of California; OSHA Safety and Health Standards for Construction; and all other applicable federal, state, county, and local laws, ordinances, codes, and the contract requirements. Where any of these are in conflict, the more stringent requirement shall be followed.
- C. Failure of the Contractor to become familiar with the aforementioned safety provisions shall not relieve the Contractor from compliance with the obligations and penalties set forth herein.
- D. Appropriate first aid facilities and supplies shall be kept at the site. All personnel within the construction area shall be required to wear protective helmets. In addition, all employees of the Contractor, and of any subcontractors, shall be provided with, and required to use, personal protective and life saving equipment as set forth in Subpart E of the OSHA Safety and Health Standards for Construction. Also, the Contractor shall provide and maintain all measures required by the Construction Safety Orders of the State of California to all applicable requirements of the OSHA Safety and Health Standards for Construction, and to all applicable requirements of the California Safety and Health Act of 1973.

2.04 Hazardous Materials

- A. Use of Potentially Hazardous Materials
 - (1) The Contractor shall implement the following hazardous materials management, spill prevention, and spill response/cleanup measures at the well site:
 - a. The Contractor shall prepare and maintain a construction site plan, including delineation of hazardous material and hazardous waste storage areas, access and egress routes, drainage paths, emergency assemble areas, and temporary hazardous waste storage areas;
 - b. The Contractor shall keep at the site copies of Materials Safety Data Sheets for all chemicals used and stored at the well site;
 - c. The Contractor shall undertake spill control and countermeasures, including employee spill prevention/response training;
 - d. The Contractor shall maintain an inventory list of emergency equipment;
 - e. The Contractor shall implement off-loading, safety and handling, procedures for each chemical; and
 - f. The Contractor shall implement notification and documentation procedures.

B. Disturbance of Contaminated Soils or Groundwater

- (1) The following procedures shall be implemented, in the event that, noxious odors, discolored soil or other indications of gross contamination are identified:
 - a. The Contractor shall stop work in areas of contact. If necessary, call responsible agencies. (Typically, the Sacramento County Environmental Management Department would be the responsible agency; the Regional Water Quality Control Board could be involved if the groundwater or surface water is contaminated, and the California Department of Toxic Substances Control could become involved if soils are contaminated.)
 - b. The Contractor shall fence off areas of contamination.
 - c. The Contractor shall perform appropriate clean-up procedures.
 - d. The Contractor shall segregate, profile, and dispose of appropriately off-site, all contaminated soils. (Required disposal method will depend on the types and concentrations of chemicals identified in the soil. Any site investigations or remediation will be performed in accordance with applicable laws.)
- (2) The costs incurred by the Contractor in addressing contamination encountered at the project site shall be paid as a negotiated contract change order.

2.05 Staking

- A. The City will stake or mark property corners and the well location.
- B. The Contractor shall carefully preserve all stakes and marks, and shall pay for any re-staking or re-marking required because of the Contractor's careless or unnecessary destruction or removal of stakes or marks.

2.06 Existing Utilities and Facilities

- A. The approximate location of existing utilities and other facilities are shown on the Contract Plans; their exact location is unknown. Additional utilities may exist that are unknown to the City and the Contractor. The City warrants neither the accuracy nor the extent of existing utilities as shown on the Contract Plans.
- B. The Contractor shall confirm the location of, and protect, all existing utilities and other facilities.
- C. The Contractor shall contact Underground Service Alert (USA) at (800) 227-2600 at least two (2) working days, but no more than 28 working days, before any underground excavation at the site. For the purpose of this requirement, excavation shall be defined as any operations that take place 18 inches or more below the existing ground surface. Before contacting USA, the Contractor shall clearly mark the location of planned excavation. The Contractor shall not begin any underground excavation until the location of underground utilities has been identified. If necessary, the Contractor shall hand dig to expose any underground utilities that may conflict with planned excavation.

- D. In the event that the Contractor discovers utilities not identified in the Contract Plans and/or Specifications, the Contractor shall immediately notify the City and the utility owner by the most expeditious method reasonably available and later confirm in writing.
- E. If the Contractor damages, disconnects, or relocates any existing facilities or utilities, the Contractor shall, at Contractor's own expense, restore them to the original condition as specified by the owner of the facility or utility. This work shall be performed in accordance with Section 13-1 of the City Standard Specifications.

2.07 Permanent Survey Monuments

- A. Contractor is responsible for verifying that the arrangements have been made for preserving and/or perpetuating all permanent survey monuments that will be affected by the work in accordance with Section 5-6 of the City Standard Specifications.

2.08 Site Security and Public Safety

- A. The Contractor shall provide and be fully responsible for site security and protection of public safety at the site.
- B. The Contractor shall properly safeguard all equipment, materials, and work against loss, damage, malicious mischief or tampering by unauthorized persons until acceptance of the work by the City. Such safeguards shall include protecting the borehole, well, and accessory pipes from introduction of foreign materials.
- C. The Contractor shall employ all means necessary to provide for site security and public safety.
- D. The Contractor shall provide, at Contractor's expense, secured storage consisting at a minimum of a locking six-foot high chain link security fence with concrete footings, or continuous surveillance by a watchman, as necessary to accomplish these objectives.

2.09 Storage

- A. Contractor's storage of materials and equipment at the project site is subject to approval by the City.
- B. All materials shall be stored in accordance with the manufacturer's Material Safety Data Sheet.
- C. Materials and equipment shall be stored in accordance with Section 5-15 of the City Standard Specifications.
- D. Material Stockpiling Limits
 - (1) Materials and equipment for the project shall be stockpiled within the subject parcel only, and shall not be stockpiled within the public street right-of-way.
 - (2) Stockpiles within the public right-of-way shall be no higher than 6 ft in height, and shall not impede traffic, nor access to residences.

- (3) Should stockpiling of materials within the public right-of-way prove to be a nuisance to the adjacent residents, the materials and/or equipment shall be moved within two (2) working days following direction by the Engineer.
- E. Materials and equipment stored at the site shall not interfere with work at the site and shall not create a hazard.

2.10 Temporary Facilities

- A. The Contractor shall incorporate all costs associated with temporary facilities into the bid price for “Bid Item No. 1 – Mobilization”. No additional compensation will be paid for temporary facilities.
- B. The Contractor shall provide and pay for all electric power required to perform all work under this Contract.
- C. The Contractor shall provide and pay for lighting to allow for safe work at the site, and in compliance with Cal/OSHA standards.
- D. Construction Water
 - (1) Construction water is available from a fire hydrant located approximately 200 feet northwest of the well site.
 - (2) The Contractor will need to contact the City of Sacramento Department of Utilities to obtain a water supply permit for this project.
 - (3) The Contractor will need to contact the City of Sacramento Department of Utilities to obtain a back flow prevention device and water meter for this project.
- E. Toilet Facilities
 - (1) The Contractor shall provide, pay for, and maintain in sanitary condition for the duration of the work, toilet facilities at the work site.
 - (2) In the event of a spill or leakage, Contractor shall provide and pay for disinfection.

2.11 Drainage

- A. Contractor shall ensure that Contractor’s activities do not result in fluids other than rain water entering any storm drain or other drainage facility.
- B. Contractor shall ensure that Contractor’s activities do not degrade the quality of rain water runoff into any storm drain or other drainage facility. Any tracking of soil or mud shall be cleaned immediately by vacuuming or sweeping.
- C. These provisions apply to both on- and off-site facilities, unless Contractor obtains written permission from the owner or operator of the facility.
- D. The Contractor shall be responsible for the control, removal, and disposal of any groundwater in accordance with Section 27-3 of the City Standard Specifications.

2.12 Dust Control

- A. The Contractor shall be responsible for the control of dust within the limits of the project at all times in accordance with Section 16-2 of the City Standard Specifications.
- B. The Contractor shall keep all streets and alleys as well as all grounds adjacent to the project site clean and free of dust, mud, and debris resulting from the Contractor's operations in accordance with Section 16-3 of the City Standard Specifications.
- C. Spillage of earth, gravel, concrete, asphalt, or other materials resulting from hauling operations along or across any public traveled way shall be removed immediately by the Contractor in accordance with Section 16-3 and section 6-2 of the City Standard Specifications.

2.13 Cooperation

- A. The Contractor shall cooperate fully with all utilities, regulatory agencies, adjacent landowners, the City and its officers, officials, employees, agents, and volunteers.
- B. At all times during the performance of work on this project, the Contractor shall practice good neighborhood relations.
- C. The Contractor shall make every effort to be considerate of the impact of Contractor's activities on neighbors, and to minimize those impacts.

2.14 Air Emissions

- A. The Contractor shall acquire all relevant permits from Sacramento Metropolitan Air Quality Management District (SMAQMD) and the California Air Resources Board (CARB) as necessary for the operation of portable generators if portable engines do not include a SMAQMD permit or are not registered under the CARB Portable Equipment Registration Program.

2.15 Cultural Resources

- A. During earthwork activities at the project site, the Contractor will be notified of, and will be required to monitor for, signs of potential undiscovered paleontological, archaeological, ethnic, or religious resources. In the event undiscovered paleontological, archaeological, ethnic, or religious resources are encountered during construction, ground-disturbing work will be halted at the site until a qualified archaeologist evaluates the situation and recommends an appropriate course of action. Prehistoric materials might include obsidian and chert flaked-stone tools (projectile points, knives, scraping implements) or tool-making debris; culturally darkened soil ("midden") containing heat-altered rock, shellfish remains, and cultural materials; and stone milling equipment (mortars, pestles, handstones, and milling stones). Historical materials might include stone footings or walls; building materials or other remains with square nails; and backfilled wells, privies, or other deposits of historic-period metal, glass, and/or ceramic refuse.

- B. The possibility of encountering archaeological resources and human remains cannot be discounted. Section 7050.5 of the California Health and Safety Code states that it is a misdemeanor to knowingly disturb a human burial. If human burials are encountered, the Contractor shall halt work in the vicinity of the remains and, as required by law, notify the County Coroner immediately. At the same time, the Contractor shall notify the City so that an archaeologist should be contacted to evaluate the situation.

2.16 Project Signs

- A. Prior to beginning any onsite work the contractor shall install a total of 2 project signs. The signs shall be supplied by the City and are approximately 30 inches by 54 inches.
- B. The locations for the installation of the signs will be given to the Contractor at the preconstruction meeting.
- C. Height of sign installation shall be as directed by the Engineer. In general, the signs shall be affixed to a 4"x4" post and installed a minimum of 7 feet and maximum of 10 feet above surrounding grade. If acceptable to the Engineer an existing sign post may be used, otherwise, the Contractor shall be required to install a new post. The sign and post installed by the Contractor shall be removed at the end of the project and the sign returned to the City.

DISPOSAL OF MATERIALS

2.17 General Requirements

- A. All materials generated by and/or removed from the work shall become the property of the Contractor. The Contractor shall dispose of these materials in accordance with all applicable federal, state and local regulations.
- B. Except as otherwise described, the Contractor shall incorporate all costs associated with materials disposal into the price for "Bid Item No. 3 – Borehole Drilling". No additional compensation will be paid for materials disposal.

2.18 Water Quality Control

- A. Water Quality Control measures shall be at a minimum in accordance with Section 16 of the City Standard Specifications. The Contractor shall prepare and submit a site specific erosion, sediment and pollution control plan (ESC Plan) that identifies all construction activities that could impact water quality and provide all the necessary mitigation BMP measures that will eliminate the discharge of any pollutants to the City's drainage system or waterways. The ESC Plan shall be submitted a minimum of 48 hours prior to start of the work. The Contractor shall not begin work until an accepted ESC Plan is on file with the Engineer.

2.19 Nuisance Water

- A. Contractor shall dispose of nuisance water at the project site, including construction water, rainfall, groundwater, surface water runoff, and any other nuisance water as necessary to protect the work from damage.
- B. Contractor's method of disposing of nuisance water shall not damage the project site or any other property.

2.20 Drill Cuttings

- A. During the project, the drill cuttings may be stockpiled at the site. At the end of the project, the City will provide a location for disposal of the drill cuttings. The Contractor shall be responsible for the transportation of the drill cuttings to a location within the City. The contractor shall spread the drill cuttings across the designated location to facilitate drying.

2.21 Drilling Fluids

- A. Drilling fluids shall consist of all fluids circulated in the borehole that have a Marsh Funnel viscosity greater than 26 seconds per quart, *or* a density greater than 8.4 pounds per gallon, *or* an average turbidity greater than 300 NTU.
- B. The Contractor shall divert drilling fluids into settlement tanks to allow for settlement of solids. The Contractor shall then direct the fluids from the settlement tanks to the on-site sanitary sewer located approximately 350 feet east of the well site as shown on Sheet W-2 of the Plan Sheets.
- C. The Contractor shall dispose of the fluids to the sanitary sewer in accordance with a discharge permit issued by Sacramento Regional County Sanitation District.
- D. The Contractor shall access the sanitary sewer in a manner that minimizes traffic diversion while ensuring public safety. The Contractor shall record the flow rate and duration of all discharges to the sewer.
- E. Contractor shall provide erosion control at the discharge point, including as necessary: plastic sheeting, energy dissipating devices, rip-rap, and other control materials. Erosion control shall be adequate to prevent damage to the discharge point.
- F. It shall be the Contractors responsibility to transport any residual solids or fluids accumulated in the settlement tanks to the location provided by the City. The Contractor shall spread the residual solids and fluid across the designated location to facilitate drying.

2.22 Initial Development Water

- A. Initial development water shall consist of all water produced during well development that has an average turbidity greater than 300 NTU.
- B. Once initial development water is less than 300 NTU, the contractor shall place development water in the City's on-site sludge pond located directly south of the well

site, as shown on Sheet W-2 of the Plan Sheets. The Contractor shall record the flow rate and duration of all discharges to the sludge pond.

- C. Contractor shall provide erosion control at the discharge point, including as necessary: plastic sheeting, energy dissipating devices, rip-rap, and other control materials. Erosion control shall be adequate to prevent damage to the discharge point.
- D. The Contractor shall provide a wastewater and test pumping discharge plan to the City five (5) working days in advance of planned mobilization to the project site.

2.23 Final Development and Testing Water

- A. Final development water shall consist of all water produced during well development after the average turbidity of the water becomes less than 30 NTU.
- B. Testing water shall consist of all water produced during well and aquifer testing.
- C. The Contractor shall discharge final development and testing water to the storm drain system and the City's on-site sludge pond located south of the well site as shown on Sheet W-2 of the Plan Sheets.
- D. At higher development discharge rates (e.g. 200% of the design capacity) the Contractor will be required to direct discharge to both the storm drain system and sludge pond to ensure that the storm drain system does not surcharge.
- E. The Contractor shall record the flow rate and duration of all discharges to the storm drain. Discharge to the storm drain shall only occur after approval by the City.
- F. Contractor shall keep detailed daily records that document the amount of water that is pumped to the storm drain. The Contractor will monitor water quality parameters of the discharge water, including pH and turbidity, to determine if the discharge water meets the City's NPDES permit requirements.
- G. The Contractor shall provide approximately 1,000 feet of discharge pipe to move water from the well site to the specified discharge location as shown on Sheet W-2 of the Plan Sheets.
- H. Contractor shall provide erosion control at the discharge point, including as necessary: plastic sheeting, energy dissipating devices, rip-rap, and other control materials. Erosion control shall be adequate to prevent damage to the discharge point.
- I. The Contractor shall provide a wastewater and test pumping discharge plan to the City five (5) working days in advance of planned mobilization to the project site.

2.24 Chlorinated Water

- A. Any fluids that contain residual chlorine may require treatment for de-chlorination prior to discharge.

PERMITS AND LICENSES

2.25 Contractor Responsibility

- A. The Contractor shall identify and obtain all licenses and permits in accordance with the laws and regulations governing the work. Any information about specific licenses or permits provided in these Specifications is for informational purposes and does not relieve the Contractor of this obligation.
- B. Contractor shall pay for all permits and licenses required for the work and shall pay all taxes properly assessed against the Contractor's equipment or property used in connection with the work.

2.26 Contractor's License

- A. The Contractor shall hold an active contractor's license in the C-57 (Water Well Drilling) classification. The license shall be in good standing.

2.27 Well Construction Permit

- A. The Contractor shall obtain a Well Construction Permit from the Sacramento County Environmental Management Department – Environmental Compliance Division; 10590 Armstrong Avenue, Suite A, Mather, CA 95655; Phone: (916) 875-8400. Well Inspection Hotline; Phone: (916) 875-8524. The County must inspect sanitary seal placement, and requires 24 hours advance notification.

2.28 Water Supply Permit

- A. The Contractor will need to contact the City of Sacramento Department of Utilities to obtain a water supply permit for this project.
- B. The Contractor will need to contact the City of Sacramento Department of Utilities to obtain a backflow prevention device and water meter.

2.29 Discharge Permit

- A. The Contractor will be responsible for obtaining a permit to discharge to the sanitary sewer from the Sacramento Regional County Sanitation District.
- B. The Contractor will be required to contact the Sacramento County Water Resource Department a minimum of two (2) weeks prior to any discharge to the storm drain to confirm that there are no conflicts with storm drain maintenance or repairs.

2.30 Encroachment Permit.

- A. The City shall obtain an Encroachment Permit for any activities that impact the public rights-of-way adjacent to, or as a result of the project.

End of Section

SECTION 3 SUBMITTALS

3.01 Submittal Review Process

- A. Contractor shall provide pre-mobilization submittals to the City five (5) working days in advance of planned mobilization date. Contractor shall provide pre-borehole drilling submittals to the City five (5) working days in advance of planned borehole drilling start date.
- B. When possible, the City shall review and approve or reject Contractor's submittals on an expedited basis. Contractor shall inform the City of specific submittals that may warrant expedited review.
- C. Contractor shall not begin work on a project phase until all of the required submittals have been approved by the City.
- D. Contractor shall not be granted a Contract extension, nor paid stand-by time, for delays that are caused by the Contractor's failure to provide the required submittals in a timely fashion.

3.02 Required Submittals

- A. Contractor shall submit the following items, which shall be approved by the City prior to mobilization:
 - (1) Well Construction Permit.
 - (2) Construction Schedule.
 - (3) Emergency Plan.
 - (4) Site Plan.
 - (5) Daily Report Form.
 - (6) Contractor Contact Information.
 - (7) Manufacturer sieve samples of the gravel envelope material, including a minimum of 500 grams of gravel envelope material.
 - (8) Sewer Discharge Permit.
 - (9) MSDS for Disinfection and Dispersant Chemicals.
 - (10) Wastewater and Test Pumping Discharge Plan.
 - (11) Erosion, Sediment, and Pollution Control Plan
- B. Contractor shall submit the following items, which shall be approved by the Engineer prior to installing conductor casing:
 - (1) Mill certification for conductor casing.
- C. Contractor shall submit the following items, which shall be approved by the Engineer prior to borehole drilling:

- (1) Mill certifications for well casing and accessory pipes.
 - (2) Well screen design from manufacturer.
 - (3) Drilling Fluid Control Program.
 - (4) Gravel Envelope Installation Diagram.
 - (5) Well Development Diagram.
- D. Contractor shall submit the following items, which shall be approved by the Engineer prior to well construction:
- (1) An estimate of the volume of gravel required to construct the well as specified, based on the actual borehole diameter as measured during the caliper survey.

Submittal List		
Time of Submittal	Spec. Section	Submittal
Pre-Mobilization	2.27	Sacramento County Well Construction Permit
	6.01	Project Schedule
	8.04	Contractor Contact Information
	8.04	Daily Report Form
	8.04	Emergency Plan
	8.04	Site Plan
	8.12	MSDS for all drilling fluid materials used
	8.19	Well screen design from manufacturer
	8.23	Manufacturer sieve samples of gravel envelope material, minimum of 500 grams
	2.29	Sewer Discharge Permit
	8.35 8.56	MSDS for Disinfection & Dispersant Chemicals
	2.18	Erosion, Sediment, and Pollution Control Plan
	2.22 2.23	Wastewater and test pumping discharge plan

Prior to Installation of Conductor Casing	8.05	Mill certification for conductor casing
	8.08	Formation samples
Pre-Borehole Drilling	8.12	Drilling Fluid Control Program
	8.19	Mill certification for well casing, well screen, and accessory pipes
		Shop drawing of sounding port
	8.20	Field welding procedures
Pre-borehole Drilling	8.23	Gravel envelope installation diagram
	8.36	Well development tool diagram
Pre-Construction	8.12	Driller's Log
	8.12	Formation samples
	8.24	Estimate of the volume of gravel required to construct the well as specified, based on the actual borehole diameter as measured during the caliper survey
	8.16	Field copies of geophysical surveys

End of Section

SECTION 4 INSPECTIONS AND MEETINGS

4.01 Pre-Bid Meeting

- A. A pre-bid meeting will be held on February 9, 2015, at 11 a.m. to discuss the site-specific project requirements.
- B. Attendance of the pre-bid meeting by prospective bidders is **mandatory**.

4.02 Pre-Construction Meeting

- A. A pre-construction meeting shall be held at the project site at a time agreed upon by the Contractor and the City.
- B. The pre-construction meeting shall be completed prior to, or (at the City's discretion) in conjunction with, mobilization.
- C. Attendance of the pre-construction meeting by the Contractor's project superintendent is **mandatory**.

4.03 Inspection Purpose and General Requirements

- A. The primary purpose of the Consulting Engineer's inspections is to confirm that the work is being performed in accordance with the Contract requirements.
- B. The secondary purpose of the Consulting Engineer's inspections is to evaluate conditions throughout construction, so the Engineer can provide the Contractor with interpretation and clarification of the Contract requirements as they apply to specific work items and conditions.
- C. The Consulting Engineer's observations and comments during inspections are intended to provide the Contractor with suggestions and guidance for completing the work in accordance with the Contract requirements. The Contractor is solely responsible for determining the appropriate course of action, for directing the work, and for fulfilling the Contract requirements. The Consulting Engineer's observations and comments shall not be considered to be direction of the work.
- D. The Contractor shall make a good faith effort to make the work available for inspection by the Consulting Engineer, to collect and provide samples for inspection by the Consulting Engineer, and to honestly represent the work to the Consulting Engineer.
- E. The Consulting Engineer shall make a good faith effort to accommodate the Contractor's construction schedule, to be available throughout construction to make inspections on short notice at the Contractor's request, and to provide interpretation and clarification of the Contract requirements.

4.04 Site Preparation

- A. Contractor shall provide City with access for inspection and approval of any site preparation to be performed as part of this Contract.

4.05 Mobilization

- A. The Contractor shall notify the City a minimum of five (5) working days in advance of the anticipated time of mobilization, and shall update the City with any changes in the schedule for mobilization.
- B. Contractor shall make drilling equipment and accessories, and sanitary facilities, available for inspection by the City.
- C. Contractor shall delineate with marking paint the proposed location of any excavations, for inspection by the City.

4.06 Construction Materials

- A. Contractor shall make drilling fluid additives, well casing, well screen, accessory pipes, gravel envelope materials, intermediate seal materials, and all other construction materials available for inspection by the City.

4.07 Conductor Casing

- A. Contractor shall notify City and the Sacramento County Environmental Management Department a minimum of 24 hours in advance of the anticipated time of the seal placement, and shall update the City with any changes in schedule, so the City may be on site to inspect the seal placement.
- B. Contractor shall provide a level and shall demonstrate to the City that the conductor casing is installed plumb prior to installation of the sanitary seal.
- C. Contractor shall provide City with a quart-sized sample of excavated material from the bottom of the conductor casing borehole.

4.08 Borehole Drilling

- A. Contractor shall notify the City a minimum of 48 hours in advance of the actual drilling of the production well.
- B. Contractor shall notify City a minimum of 24 hours in advance of the anticipated time of geophysical logging, and shall update the City with any changes in schedule, so the City may be on site to inspect the geophysical logging.
- C. Contractor shall provide samples of drilling fluid to the City as requested for analysis by the City.
- D. City shall inspect final borehole depth and diameter as measured by the geophysical surveys.

4.09 Well Construction

- A. Contractor shall notify City a minimum of 24 hours in advance of the anticipated time of both well construction and seal placement, and shall update the City with any changes in schedule, so the City may be on site to inspect both the well construction and the seal placement

- B. Contractor shall make the following items available for inspection by the City: well casing and screen joint welds; centralizer placement and welds; gravel envelope material, equipment, and installation methods; sanitary seal grout and installation methods; and installation and positioning of accessory pipes.
- C. Contractor shall allow City to view weight indicator and shall demonstrate to the City that the well casing assembly is hanging freely prior to gravel installation.
- D. Contractor shall assist City with inspection by making other measurements requested by the City.

4.10 Well Development and Testing

- A. Contractor shall notify City a minimum of 24 hours in advance of the anticipated time of initial well development, final well development, and well testing. Contractor shall update the City with any changes in schedule, so the City may be on site to inspect initial well development, final well development, and well testing.
- B. Contractor shall make well development tools, pumping equipment, discharge assembly, sand testing equipment, plumbness and alignment testing equipment available for inspection by the City.
- C. All testing for well acceptance must be witnessed by the City. Testing not witnessed by the City shall not be considered valid for final acceptance unless otherwise approved by the City in writing.

4.11 Site Clean-up and Records

- A. Contractor shall notify City a minimum of 24 hours in advance of the anticipated time of both video inspection and backfilling and compaction, and shall update the City with any changes in schedule, so the City may be on site to witness both the video inspection and backfilling and compaction.
- B. Contractor shall make wellhead security, video inspection, backfilling and compaction of any excavations, and site clean-up available for inspection by the City.
- C. Video inspection for well acceptance must be witnessed by the City. Video inspection not witnessed by the City, or of insufficient clarity or detail for full inspection, shall not be considered valid for final acceptance unless otherwise approved by the City in writing.
- D. Backfilling and compaction must be witnessed by the City. Backfilling and compaction not witnessed by the City, or improperly performed, shall not be considered valid for final acceptance unless otherwise approved by the City in writing.

4.12 Well Disinfection

- A. Contractor shall notify City a minimum of 24 hours in advance of the anticipated time of well disinfection, and shall update the City with any changes in schedule, so the City may be on site to witness well disinfection.
- B. Contractor shall make well disinfection available for inspection by the City.

SECTION 5 PERFORMANCE REQUIREMENTS

5.01 General

- A. These performance requirements are intended to objectively measure the suitability of the project for the intended purpose(s).
- B. The Contractor shall be solely responsible for meeting the performance requirements.
- C. The City shall conduct or witness, at the City's sole discretion, all tests to evaluate compliance with performance requirements. Tests made by the Contractor without the City present, or without the City's approval, shall not be valid for the purpose of determining compliance with performance requirements.
- D. No separate payment shall be made for meeting the performance requirements.
- E. If the completed project does not meet the performance requirements, the Contractor shall, at Contractor's own expense, do any and all work necessary to cause the project to meet the performance requirements. If, after such efforts, the completed project does not meet the performance requirements, the project may be rejected.

5.02 Sand Content Requirement

- A. Sand content of pumped water shall be measured at the design capacity of the well, unless otherwise determined by the City.
- B. Sand content of pumped water shall be measured with a centrifugal ("Rossum") sand sampler in accordance with ANSI/AWWA A100-97, Appendix C.
- C. The average sand content of water pumped over any five (5)-minute period shall not exceed five (5) parts per million over the first 30 minutes of pumping.
- D. The Contractor shall incorporate all costs associated with meeting the sand content requirement into the bid price for "Bid Item No. 12 – Well Development". No additional compensation will be paid for meeting the sand content requirement.

5.03 Turbidity Requirement

- A. Turbidity of pumped water shall be measured at the design capacity of the well, unless otherwise determined by the City. The well shall not be required to meet the turbidity requirement when operating at flow rates greater than the design capacity.
- B. The turbidity requirement shall not apply for the first 15 minutes after surging or start-up.
- C. The turbidity of pumped water shall not exceed five (5) NTU.
- D. The Contractor shall incorporate all costs associated with meeting the turbidity requirement into the bid price for "Bid Item No. 12 – Well Development". No additional compensation will be paid for meeting the turbidity requirement.

5.04 Well Efficiency Requirement

- A. The 24-hour specific capacity of the well (gallons per minute per foot of drawdown) shall have stabilized.
- B. As measured and calculated by the City, the well shall be at least 80 percent hydraulically efficient.
- C. The Contractor shall incorporate all costs associated with meeting the well efficiency requirement into the bid price for “Bid Item No. 12 – Well Development”. No additional compensation will be paid for meeting the well efficiency requirement.

5.05 Plumbness Requirement

- A. The plumbness of the well shall be measured as described in “Bid Item No. 14 – Plumbness and Alignment Testing”.
- B. The horizontal deviation of the well from vertical shall not exceed two-thirds (2/3) of the smallest inside diameter per one-hundred (100) feet of depth, for the entire depth of the well.
- C. The Contractor shall incorporate all costs associated with meeting the plumbness requirement into the various bid prices for well drilling and construction items. No additional compensation will be paid for meeting the plumbness requirement.

5.06 Alignment Requirement

- A. The alignment of the well shall be measured with a pipe or dummy as described in “Bid Item No. 14 – Plumbness and Alignment Testing”.
- B. The pipe or dummy must pass freely from the ground surface to the top of the first screened interval.
- C. The Contractor shall incorporate all costs associated with meeting the alignment requirement into the various bid prices for well drilling and construction items. No additional compensation will be paid for meeting the alignment requirement.

5.07 Video Survey Requirements

- A. The video survey shall be conducted as described in “Bid Item No. 15 – Video Survey”.
- B. The total well depth, as measured by the video survey, shall be as specified.
- C. As measured by the video survey, no more than one (1) foot of fill material shall remain in the well.
- D. The depth of well screens and the sounding port, as measured by the video survey, shall be as specified.
- E. As observed during the video survey, no voids shall be present in welded joints.
- F. All materials, as observed during the video survey, shall be undamaged and in suitable condition to allow the full use of the well for the intended purpose. All well

screens, as observed during the video survey, shall be free of mud or other incrustation.

- G. The Contractor shall incorporate all costs associated with meeting the video survey requirements into the various bid prices for well drilling, construction, and development items. No additional compensation will be paid for meeting the video survey requirements.

End of Section

SECTION 6 PROJECT SCHEDULE

6.01 Project Schedule

- A. The Contractor shall submit a detailed schedule in accordance with Section 7-2 of the Standard Specifications. No progress payments will be made for work completed prior to acceptance of the schedule.
- B. The activity time schedule shall indicate the chronological sequence in which the Contractor proposes to carry out each aspect of the work, the calendar dates on which the Contractor will begin the several salient elements of the work (procurement and delivery of materials, posting of “No Parking” signs, notification of property owners, scheduling of equipment, excavation of trenches, placement of pipe, etc), and the contemplated dates for completing said salient elements.
- C. The Contractor shall contact the City at least forty-eight (48) hours in advance of any change in the work schedule. If the Contractor desires to make a major change in his method or operations after commencing construction, or if the activity time schedule fails to reflect the actual progress of the work, the Contractor shall submit a revised schedule to the City in advance of beginning revised operations.
- D. Contractor shall notify the City at least five (5) working days before the anticipated date of mobilization.
- E. Contractor shall maintain a current project schedule and shall update the schedule weekly.
- F. Contractor shall immediately provide verbal updates of project schedule to City upon request. Contractor shall provide a written update of the project schedule within two (2) working days of City’s request.

6.02 Time of Completion

- A. Please refer to the Contract Agreement “Item 9 - Time of Completion” located in the front end documents.
- B. Work shall be considered substantially complete when all aquifer testing is completed. Work shall be considered finally complete when all bid items under this Contract have been accepted by the City per section 8 of the City’s Standard Specifications

6.03 Working Days and Hours

- A. To the extent feasible, construction activities shall be limited to the daytime hours of 7:00 AM and 6:00 PM, Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday or Sunday.
- B. Operations may continue 24 hours per day from the time borehole drilling begins to the time the final seal is placed.

6.04 Contract Extensions

- A. If, at any time during the project, the Contractor believes that the work cannot be completed within the Contract time, the Contractor shall notify the Engineer in writing. The Contractor shall provide a full explanation of the reasons for the delay, and shall state the amount of additional time the Contractor requests to complete the work.
- B. No Contract extensions will be granted for delays caused by any of the following:
 - (1) Contractor's failure to provide, mobilize to the project site, set up, operate, maintain in good working condition, and demobilize from the project site, all equipment necessary for the successful completion of the project in a timely manner.
 - (2) Contractor's failure to provide the required submittals in a timely manner.
 - (3) Contractor's failure to devote the necessary resources and labor to make equipment repairs in a timely manner.
 - (4) In the event that the equipment repairs cannot be made in a timely manner, or repairs are not successful, Contractor's failure to replace the broken equipment.
 - (5) Contractor's failure to comply with the provisions of this Contract.
 - (6) Contractor's failure to make a good faith effort to complete the work within the Contract time.
- C. All other causes for delays will be evaluated by the Engineer on a case-by-case basis and Contract extensions, if any, will be granted only if the Engineer determines that the Contractor was not responsible for the delay.

End of Section

SECTION 7 ACCEPTANCE OF WORK, REJECTION OF WORK, AND PROJECT CLOSEOUT

7.01 Rejection of Work

- A. Any work that is not performed as specified, does not meet the performance requirements, or is not suitable for the intended use, may be rejected by the City.
- B. Contractor may salvage materials from any rejected work. Salvaged materials shall not be used in corrections or replacement of work unless approved by the City in writing.
- C. The Contractor shall be required to properly destroy any rejected boreholes or wells in accordance with all applicable regulations.

7.02 Correction of Work

- A. The Contractor will be given two (2) opportunities to correct rejected work, unless otherwise approved by the City in writing.
- B. The Contractor must submit to the City a plan for correcting the work. The City must approve this plan before the Contractor proceeds with any corrections.
- C. If, in two (2) attempts, the Contractor does not correct the work so that it is as specified, meets the performance requirements, and is suitable for the intended use, the work will be rejected and the Contractor will be required to provide a replacement.

7.03 Replacement of Work

- A. All replacement work shall be performed in accordance with this Contract and as specified.

7.04 Acceptance of Incomplete or Inadequate Work

- A. At the City's sole discretion, the City may choose to accept incomplete or inadequate work.
- B. The City shall negotiate a reduced price, subject to the concurrence of the Contractor, for any incomplete or inadequate work that the City chooses to accept.
- C. If an agreement about a reduced price for incomplete or inadequate work cannot be reached, the work shall be considered rejected.

7.05 Payment for Corrections, Replacement Work, and Rejected Work

- A. No payment will be made for rejected work.
- B. The Contractor will only be paid for bid items that are completed as specified, meet the performance requirements, and are suitable for the intended use.
- C. No additional payment will be made for corrections or replacement work.

- D. No payment will be made for salvaged materials that are not accepted for reuse in corrections or replacement of work.
- E. No payment will be made for destruction of any rejected boreholes or wells.

7.06 Contract Time for Corrections and Replacement Work

- A. No extensions to the Contract time shall be granted for corrections or replacement of work if the City determines that the Contractor has not promptly and fully corrected or replaced all rejected work.
- B. Any Contract extensions or waivers of liquidated damages for corrections or replacement of work shall be at the City's sole discretion.

7.07 Record Drawings

- A. The Contractor shall maintain a neatly and accurately marked set of record drawings in accordance with Section 5-8 of the City Standard Specifications.
- B. The record drawings shall include any deviations to the plans.

7.08 Project Closeout

- A. The issuance of a punch list, final acceptance of the work, and the final payment shall be in accordance with Section 8-4 of the City Standard Specifications.
- B. When the contractor notifies the Engineer that the project has been completed the Engineer shall perform a walk through and develop a list of deficient work items. After the contractor completes correction of the deficiencies to the satisfaction of the Engineer, a final walk through will be scheduled with the City Operation and Maintenance personnel. At the final walk through a punch list will be developed and submitted to the Contractor. The Contractor shall notify the Engineer when punch list items have been completed. The Engineer will then inspect the punch list work. If the work is completed to the satisfaction of the Engineer, and if as-built drawings are completed and submitted, a completion report will be prepared.

End of Section

SECTION 8 BID ITEMS

BID ITEM NO. 1 – PROJECT MOBILIZATION

8.01 Scope of Work

- A. This bid item shall include the following:
- (1) Obtaining all permits.
 - (2) Complying with all applicable regulations.
 - (3) Preparing all submittals.
 - (4) Preparing an Emergency Plan.
 - (5) Preparing a Traffic Control Plan.
 - (6) Providing, installing, and maintaining sanitary and temporary facilities.
 - (7) Attending all meetings.
 - (8) Providing access for all inspections.
 - (9) Transporting personnel, equipment, and materials to the project site.
 - (10) Setting up equipment at the project site.
 - (11) Demobilizing from the project site.
- B. This bid item shall also include **provision of all labor, equipment, and materials associated with fulfilling the requirements of this Contract, but not directly related to a specific Bid Item.**

8.02 Measurement and Payment

- A. This bid item will be paid as a lump sum.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:
- (1) Bid Item No. 1 – Mobilization.
- C. This bid item will be paid according to the following schedule:
- (1) 70 percent after obtaining permits, preparing submittals, providing temporary facilities, and transporting personnel, equipment, and materials to the project site.
 - (2) 30 percent after transporting personnel, equipment, and materials from the project site (demobilization).

8.03 Materials and Equipment

- A. Reverse Circulation Drill Rig

- (1) Reverse circulation drill rig shall include all associated equipment for reverse circulation drilling and for the satisfactory completion of the specified work.
- (2) Rig shall be capable of and equipped to support the weight of the complete well casing, well screen, and accessory pipe assembly without the use of float plugs.
- (3) Rig shall be equipped with a dial-reading weight indicator for weighing drilling string and casing loads.
- (4) Rig shall be equipped with a drilling rate recorder.
- (5) Drill pipe shall be a minimum of six (6) inches in diameter.

B. Air Compressor

- (1) Air compressor shall be capable of airlifting a minimum of 500 gallons per minute.

8.04 Methods

- A. Contractor shall provide, mobilize to the project site, set up, operate, maintain in good working condition, and demobilize from the project site, all of the equipment listed in this section.
- B. In addition to the equipment specifically listed in this section, Contractor shall provide, mobilize to the project site, set up, operate, maintain in good working condition, and demobilize from the project site, all other equipment necessary for the successful completion of the project, but not directly related to any other bid item.
- C. All equipment to be used below ground shall be cleaned and disinfected prior to use.
- D. The Contractor shall provide a site plan to the City that shows the planned configuration of equipment at the well site. The site plan shall include hazard materials provisions as described in Section 2.04.
- E. Contractor shall provide email and cellular phone contact information for their office project manager, field superintendent, and project drillers prior to mobilization.
- F. Contractor shall provide a copy of their Daily Report Form to the City prior to mobilization.
- G. Emergency Plan
 - (1) The intent of the Emergency Plan is to ensure that, in the event of an emergency at the project site, all workers know the procedure to follow and have all contact and location information necessary to quickly respond to an emergency at the project site.
 - (2) Contractor shall prepare an Emergency Plan that includes the following minimum components:
 - a. The name, address, and phone number of the nearest medical facility that accepts emergency patients.
 - b. A map and directions from the project site to the emergency facility.

- c. Emergency phone numbers for the local police department, fire departments, and poison control center.
 - d. A location map showing the project site, and a written description of the project site location that can be used to direct emergency vehicles to the project site.
 - e. The procedure to be followed in the event of an emergency.
- (3) The Contractor shall submit the Emergency Plan to the City a minimum of five (5) working days prior to mobilization.
 - (4) The Contractor shall review the Emergency Plan with all regular workers at the site. All regular workers at the site should know where the nearest emergency medical facility is, the route from the project site to that facility, and the procedure to be followed in the event of an emergency.

BID ITEM NO. 2 – CONDUCTOR CASING AND SANITARY SEAL

8.05 Scope of Work

- A. This bid item shall include the following:
 - (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
 - (2) Mill Certification and delivery ticket for conductor casing.
 - (3) Drilling the conductor casing borehole, installing the conductor casing, installing the sanitary seal between the borehole and the conductor casing, and allowing the sanitary seal to cure for 24 hours.

8.06 Measurement and Payment

- A. This bid item will be paid as a lump sum.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:
 - (1) Bid Item No. 2 – Conductor Casing and Sanitary Seal.

8.07 Materials and Equipment

- A. Contractor shall submit mill certification and delivery ticket to the City for the conductor casing material.
- B. Conductor Casing
 - (1) Conductor casing shall be 36-inch outside diameter with a 3/8 inch thick wall. Casing shall be round such that no measured diameter of the casing is more than 1/8 inch larger or smaller than the specified diameter.

- (2) Conductor casing shall be new and shall be fabricated of steel plate that meets the requirements of ASTM A-139 or A-53 Grade B, or approved equal. No hydrostatic testing of the conductor casing is required. Mill certification shall be submitted to the City a minimum of five (5) working days prior to drilling the conductor casing borehole.
- (3) The conductor casing sections shall be a minimum of 20 feet long, unless a shorter length is required to obtain the specified total length of conductor casing.
- (4) Section ends shall be machined flat perpendicular to the axis of the casing and shall not vary more than 0.010 inch at any point from a true plane at right angles to the axis of the casing.
- (5) For field assembly by welding, section ends shall have collars of the same thickness and physical properties as the corresponding casing section, or beveled machined ends. The inside edge of the collars and the outside edge of the adjacent casing section shall be ground or sufficiently scarfed to remove sharp edges and burrs. If collars are used, a minimum of three (3) peep holes shall be provided to ensure proper alignment of the casing during installation.

C. Centralizers

- (1) Centralizers shall be made of the same material as the adjacent casing section, and shall be welded directly to the casing.
- (2) Centralizers shall be nominally 5/16 inch thick, two (2) inches wide, 36 inches long, bent to have a minimum of one (1) linear foot of bearing surface parallel to and at least four (4) inches away from the casing.

D. Sand-Cement Grout

- (1) Sand-cement grout shall consist of a mixture of ASTM C150, Type II cement, sand, and water in the proportion of not more than 2 parts, by weight, of sand to 1 part of cement with about seven (7) gallons of water per 94-pound sack of cement. This is equivalent to a 10.3-sack mix.
- (2) The water used to prepare the sand-cement grout shall be of drinking water quality, compatible with Type II cement, and free of contamination and suspended matter.
- (3) The sand-cement grout shall be well mixed and free of clumps.

E. Cement Pump

- (1) The cement pump shall be capable of pumping the sand-cement grout under pressure to the specified depth.
- (2) The cement pump shall be equipped with a pressure gage to allow for assessment of the force being exerted by the cement pump.

8.08 Methods

A. Borehole Drilling

- (1) Contractor shall drill a 48-inch diameter borehole to a depth of 55 feet below ground surface.
- (2) The borehole shall be sufficiently plumb and of sufficient diameter that the conductor casing can be installed plumb with a minimum of four (4) inches of annular space between the conductor casing and the borehole at all points.
- (3) The bottom of the conductor casing is intended to be installed in competent clay. Contractor shall notify the City if the material at the bottom of the specified conductor casing borehole depth is not competent clay.

B. Formation Sample Collection

- (1) During borehole drilling, the Contractor shall collect formation samples every 10 feet **and** more frequently when significant changes in formation type occur.
- (2) Samples shall be laid out on filter fabric on a flat, well-drained area. The area shall be out of the way of construction activities, and shall not be adjacent to noisy equipment. The samples shall be laid out in a regular pattern so that the depth of each sample is clearly identifiable. The samples shall be adequately preserved at the site to allow for evaluation by the City.
- (3) Each sample shall consist of two components:
 - a. One (1) gallon of drained, unwashed formation material. This sample shall be laid directly on the filter fabric.
 - b. One (1) pint of drained, unwashed formation material. This sample shall be placed inside a quart-sized plastic Ziploc ® freezer bag. The Contractor shall provide the sample bag. The sample bag shall be labeled with the well name and the date, time, and depth interval of the sample.
- (4) The Contractor shall retain the formation samples at the site until they are accepted by the City. The Contractor shall not be required to retain the formation samples after the completion of all work under this Contract.
- (5) The Contractor shall prepare a “driller’s log” of the formation samples. The “driller’s log” shall include the depth interval and a description of each distinct formation type encountered in the borehole.

C. Conductor Casing Assembly and Installation

- (1) Contractor shall weld a minimum of two (2) sets of four (4) centralizers onto the conductor casing assembly. Each set of four (4) centralizers shall be spaced equally around the circumference of the conductor casing. One set of centralizers shall be installed within five (5) feet of each end of the conductor casing assembly.
- (2) Contractor shall lap-weld the conductor casing joints during installation, with a minimum of two (2) passes per circumference. All joints shall be watertight. All peep holes shall be welded closed. All welding shall be in accordance with the Welding Program as described in Section 12.04.

- (3) Contractor shall install the conductor casing plumb and centered in the conductor casing borehole.

D. Sanitary Seal

- (1) Sanitary seal shall be pumped under pressure via tremie pipe. The tremie pipe shall be installed within five (5) feet of the bottom of the conductor casing borehole before placement of the seal begins. Tremie pipe shall be withdrawn as the seal is placed to avoid creating excessive pressure. Tremie pipe shall remain submerged in sand-cement grout throughout the entire seal placement.
- (2) The Contractor shall place a grate or screen over the cement pump hopper to remove gravel and clumps from the sand-cement grout prior to placement.
- (3) The sand-cement grout shall be pumped until it reaches ground surface. Once the sand-cement grout reaches ground surface, the Contractor shall withdraw the tremie pipe.
- (4) The sanitary seal shall be allowed to cure undisturbed for a minimum of 24 hours.

BID ITEM NO. 3 – BOREHOLE DRILLING

8.09 Scope of Work

A. This bid item shall include the following:

- (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
- (2) Drilling the production borehole, collecting formation samples, and monitoring and maintaining drilling fluid properties.

8.10 Measurement and Payment

A. This bid item will be measured to the nearest unit as the number of linear feet successfully completed.

B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:

- (1) Bid Item No. 3 – Borehole Drilling.

8.11 Materials and Equipment

A. The Contractor shall provide a mud balance, Marsh funnel, sand content set, and all related equipment and materials for measuring drilling fluid properties. If the Contractor uses bentonite as a drilling fluid additive, the Contractor shall also provide a filter press and all related equipment and materials.

B. The Contractor shall provide mud tanks with a minimum capacity equal to the maximum borehole volume, and a configuration that effectively settles out drill cuttings before fluids are recirculated.

C. Drilling Fluid Control Equipment

- (1) The Contractor shall provide any or all of the following equipment as necessary to maintain the specified drilling fluid properties:
 - a. A shear mixing system.
 - b. Shale shakers.
 - c. De-sanders and de-silters.
 - d. Any other equipment necessary to maintain the specified drilling fluid properties.

D. Drilling Fluids

- (1) Drilling fluid additives must meet API Standard 13-A (Drilling Fluid Materials) or NSF Standard 60 (Drinking Water Treatment Chemicals), must be standard materials used in the water well drilling industry, and must be used in accordance with the manufacturer's recommendations.
- (2) The Contractor shall use only potable water to prepare drilling fluids, and shall treat the water as necessary before use.
- (3) Drilling fluid properties shall be within the following ranges unless otherwise approved by the City:
 - a. For all drilling fluids, including bentonite drilling fluids:
 - (i) Mud Weight: 8.6 – 9.1 pounds per gallon.
 - (ii) Marsh Funnel Viscosity: 28 – 34 seconds per quart.
 - (iii) Sand Content: less than 2% by volume.
 - b. For bentonite drilling fluids:
 - (i) Filter Cake Thickness (30 minutes at 100 PSI): 1/32 to 2/32 inch.
 - (ii) Water Loss/Filtrate (30 minutes at 100 PSI): low enough to control water-sensitive clay formations.

8.12 Methods

A. Drilling Fluid Control Program

- (1) The purpose of the Drilling Fluid Control Program is to maintain a drilling fluid that facilitates removal of cuttings from the borehole, controls difficult drilling conditions, and protects the water-bearing formations.
- (2) The Contractor shall prepare a Drilling Fluid Control Program that includes:
 - a. A diagram of the configuration of drilling fluid control equipment that the Contractor plans to use for the project. The diagram shall be annotated with descriptions of each piece of equipment; alternately, the Contractor shall submit a separate list of equipment.

- b. A written plan for maintaining the specified drilling fluid properties. The plan shall include:
 - (i) Water to be used in the drilling fluid, and any water treatment required.
 - (ii) A description of all drilling fluid additives that the Contractor anticipates using in borehole drilling, including the anticipated quantities and mix ratios.
 - (iii) Proposed development methods to remove drilling fluid additives from the completed well.
 - (iv) Methods that the Contractor intends to employ to control difficult drilling conditions such as lost circulations, water-sensitive clay formations, and any other difficult conditions the Contractor anticipates encountering during borehole drilling.
 - (v) Proposed maximum acceptable water loss that the Contractor will maintain throughout drilling to control water-sensitive clay formations.
 - (vi) Proposed drilling fluid properties for any portions of the borehole where the Contractor wishes to deviate from the specified drilling fluid properties (only for portions of the borehole that will be sealed against). The Contractor shall provide justification of why different drilling fluid properties are warranted in these portions of the borehole.
 - c. Material Safety Data Sheets for all drilling fluid additives that the Contractor anticipates using during borehole drilling, including all drilling fluid additives that are stored at the project site.
- (3) The Contractor shall submit the Drilling Fluid Control Program to the City a minimum of five (5) working days prior to beginning borehole drilling.

B. Record-Keeping

- (1) The Contractor shall maintain detailed records during borehole drilling, and shall make records available to the City upon request.
- (2) The Contractor shall maintain the following records during borehole drilling:
 - a. Continuous record of drilling penetration rate.
 - b. All measurements of drilling fluid properties.
 - c. Time, depth, quantity, and description of any additives to the drilling fluid.
 - d. Any difficult or unusual drilling conditions.
 - e. Depth and description of formation samples.
 - f. Depth and description of any observable changes in formation color.
 - g. Time and reason for any interruptions in borehole drilling.

C. Borehole Drilling

- (1) Using the reverse rotary method, Contractor shall drill a 32-inch diameter borehole to a depth of 320 feet below ground surface.
 - a. The completed borehole must be of sufficient diameter and sufficient plumbness so that when the well casing and screen assembly is installed as specified and in compliance with the plumbness and alignment requirements, there is a minimum of five (5) inches of annular space between the well casing and screen assembly and the borehole at all points.
 - b. The Contractor shall not drill below the specified depth to avoid poorer water quality below that depth. Should the Contractor drill below the specified depth, the Contractor shall backfill the borehole to the specified depth by installing bentonite chips via tremie pipe, unless otherwise approved by the City. No payment shall be made for borehole drilling below the specified depth or for backfilling to the specified depth.
- (2) The Contractor may drill a smaller diameter pilot hole and ream the pilot hole to the specified diameter. If the Contractor chooses this option, all of the requirements for borehole drilling shall apply to the pilot borehole and the reaming operation. The Contractor shall use a pilot bit when reaming.
- (3) Contractor shall select a drilling assembly (including collar weight) and drilling speed that allows the Contractor to maintain the plumbness and alignment of the borehole within the specified parameters. Contractor is encouraged to make field checks of plumbness during drilling.

D. Drilling Fluid Control

- (1) Contractor shall measure drilling fluid properties (mud weight, viscosity, sand content, and water loss) a minimum of once every four (4) hours during borehole drilling.
- (2) The City will measure drilling fluid properties periodically during borehole drilling. These measurements are intended to independently verify and check the Contractor's measurements, and do not relieve the Contractor of the responsibility to measure drilling fluid properties.
- (3) If, at any time during borehole drilling, drilling fluid properties are not within the ranges specified above, the Contractor shall cease drilling and shall circulate and condition the drilling fluid until it falls within the specified ranges.
- (4) If the Contractor cannot maintain the specified drilling fluid properties, the Contractor shall employ, at Contractor's own expense, a qualified drilling fluid engineer. The drilling fluid engineer shall consult with the Contractor, measure drilling fluid properties, and assist the Contractor with adjusting the drilling fluid as necessary to achieve the specified drilling fluid properties.
- (5) All drilling fluid additives must be approved by the City prior to use.

E. Formation Sample Collection

- (1) During borehole drilling, the Contractor shall collect formation samples every 10 feet **and** more frequently when significant changes in formation type occur.

- (2) Samples shall be laid out on filter fabric on a flat, well-drained area. The area shall be out of the way of construction activities, and shall not be adjacent to noisy equipment. The samples shall be laid out in a regular pattern so that the depth of each sample is clearly identifiable. The samples shall be adequately preserved at the site to allow for evaluation by the City.
- (3) Each sample shall consist of two components:
 - a. One (1) gallon of drained, unwashed formation material. This sample shall be laid directly on the filter fabric.
 - b. One (1) pint of drained, unwashed formation material. This sample shall be placed inside a quart-sized plastic Ziploc[®] freezer bag. The Contractor shall provide the sample bag. The sample bag shall be labeled with the well name and the date, time, and depth interval of the sample.
- (4) The Contractor shall retain the formation samples at the site until they are accepted by the Engineer. The Contractor shall not be required to retain the formation samples after the completion of all work under this Contract.
- (5) The Contractor shall prepare a “driller’s log” of the formation samples. The “driller’s log” shall include the depth interval and a description of each distinct formation type encountered in the borehole.

F. Final Conditioning of Drilling Fluids

- (1) Once the Contractor has drilled to the full specified well depth, the Contractor shall circulate and condition the drilling fluid until the drilling fluid properties are within the following ranges:
 - a. Mud Weight: less than 8.9 pounds per gallon.
 - b. Marsh Funnel Viscosity: less than 30 seconds per quart.
- (2) The Contractor shall continue to circulate drilling fluids, conditioning the fluids as necessary, until all of the following have occurred:
 - a. Fluid circulated out of the borehole does not contain drill cuttings.
 - b. Circulation has continued for a minimum of 60 minutes, or until two (2) borehole volumes have been circulated, whichever is longer.
 - c. Three (3) consecutive measurements of drilling fluid properties, made a minimum of 30 minutes apart, confirm that the specified drilling fluid properties have been obtained.

BID ITEM NO. 4 – GEOPHYSICAL SURVEYS

8.13 Scope of Work

A. This bid item shall include the following:

- (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.

- (2) Providing caliper, deviation, spontaneous potential, gamma ray and resistivity (single-point, 16-inch normal, and 64-inch normal) surveys and up to four (4) hours of idle time for the Engineer to interpret the geophysical surveys and modify the well design if necessary.

8.14 Measurement and Payment

- A. This bid item will be paid as a lump sum.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:
 - (1) Bid Item No. 4 – Geophysical Surveys.

8.15 Materials and Equipment

- A. Drawworks for Running Geophysical Surveys
 - (1) The drawworks shall measure the depth of the measurement tool to the nearest foot.
 - (2) The drawworks shall be calibrated such that the error in depth measurement does not exceed one (1) percent.
 - (3) The Contractor shall verify calibration of the drawworks upon request. Calibration shall be to within 0.25 percent.
- B. Caliper Logging Tool
 - (1) The caliper logging tool shall be equipped with two sets of measurement arms that are perpendicular to each other. Each set of measurement arms shall operate independently, and shall consist of two arms separated by 180 degrees.
 - (2) The caliper logging tool shall be equipped with a deviation measurement device.
- C. Electric Logging Tool
 - (1) The electric logging tool shall include equipment to perform spontaneous potential and resistivity (single-point, 16-inch normal, 64-inch normal) surveys.
- D. Geophysical Survey Subcontractors
 - (1) Geophysical survey subcontractors must be approved by the City.

8.16 Methods

- A. Geophysical surveys shall be run to the full depth of the production well and shall include caliper, gamma, spontaneous potential, and resistivity (single-point, 16-inch normal, and 64-inch normal) surveys.
- B. The spontaneous potential and resistivity portions of the geophysical surveys may be run in the pilot borehole (if used) or in the full-diameter borehole. The caliper survey must be run in the full-diameter borehole.
- C. Geophysical surveys shall be run at a maximum rate of 40 feet per minute.

- D. The scale of the geophysical surveys shall be as follows:
 - (1) The vertical scale shall be 20 feet per inch.
 - (2) The horizontal scale is estimated to be 20 millivolts per inch for spontaneous potential, and 40 ohm meter²/meter per inch for the 16-inch normal and 64-inch normal resistivity.
- E. The geophysical surveys shall measure the intended geophysical properties, and shall be presented in a manner that allows the City to fully evaluate the geophysical properties of the borehole for the purpose of finalizing the well design.
- F. Upon completion of the geophysical surveys, the Contractor shall provide the City with eight (8) field hard copies and one (1) electronic copy of the geophysical surveys in PDF and ASCII-format.
- G. The Contractor shall provide the Engineer with an estimate of the volume of gravel required to construct the well as specified and shown in Drawing W-3 based on the actual borehole diameter as measured during the caliper survey.
- H. Immediately upon completion of the geophysical surveys, the Contractor shall run tremie pipe to the full well depth and begin to circulate drilling fluids. Alternately, if the Contractor is not prepared to begin well construction, the Contractor may make a wiper pass of the borehole.
- I. The Contractor shall allow for a maximum of two (2) hours of idle time after the completion of the final geophysical surveys to allow the City to interpret the geophysical surveys and modify the well design if necessary. No stand-by time shall be paid for the first two (2) hours of idle time.

BID ITEM NOS. 5 THROUGH 8 – WELL CASING, WELL SCREEN, GRAVEL FILL PIPE, AND SOUNDING PIPES

8.17 Scope of Work

- A. This bid item shall include the following:
 - (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
 - (2) Mill Certifications and delivery tickets for well casing, well screen, and accessory pipes.
 - (3) Well screen design from manufacturer.
 - (4) Installing well casing, well screen, and accessory pipes.

8.18 Measurement and Payment

- A. These bid items will be measured to the nearest unit as the number of linear feet successfully installed.
- B. These bid items, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:

- (1) Bid Item No. 5 – Blank Well Casing (20.00-inch O.D. x 5/16-inch Wall ASTM A-778 Type 304 Stainless Steel Casing).
- (2) Bid Item No. 6 – Wire Wrapped Well Screen (20.00-inch O.D. Wire Wrapped Type 304 Stainless Steel Screen with 0.075” Slot Size).
- (3) Bid Item No. 7 – Sounding Pipe (2-inch Schedule 10 Stainless Steel Pipe).
- (4) Bid Item No. 8 – Gravel Fill Pipe (3-inch Schedule 40 Mild Steel Pipe).

8.19 Materials and Equipment

- A. Contractor shall submit Mill Certificates and delivery tickets to the engineer for well casing, well screen, and accessory pipes.
- B. Contractor shall submit to the engineer the well screen design from the manufacturer.
- C. Contractor shall submit a shop drawing of the sounding port entry box.
- D. Stainless Steel Blank Well Casing
 - (1) Stainless steel blank well casing shall be 20.00-inch outside diameter with a wall thickness of 5\16 inch, as indicated on the drawings. Casing shall be round such that no measured diameter of the casing is more than 1/8 inch larger or smaller than the specified diameter.
 - (2) Blank well casing shall be new and shall be manufactured in accordance with ASTM A-778 Type 304 Stainless Steel.
 - (3) Mill certification shall be submitted to the City a minimum of five (5) working days prior to borehole drilling.
 - (4) The casing sections shall be a minimum of 40 feet long, unless a shorter length is required to obtain the specified lengths of well casing.
 - (5) Section ends shall be machined flat perpendicular to the axis of the casing and shall not vary more than 0.010 inch at any point from a true plane at right angles to the axis of the casing.
 - (6) The bottommost section of the well casing shall be equipped with an SE-type end cap that is fabricated of the same thickness and physical properties of the corresponding casing section.
- E. Wire Wrapped Well Screen
 - (1) Well screen shall be wire wrapped “Double Extra Strong”.
 - (2) “Double Extra Strong” well screen shall be designed for a minimum of three times the setting depth and shall have a minimum rod diameter of 0.25 inches.
 - (3) Well screen shall be 20.00-inch outside diameter, with slot size of 0.075-inches.
 - (4) Well screen shall be new and shall be manufactured from Type 304 stainless steel.
 - (5) Mill certification shall be submitted to the City a minimum of five (5) working days prior to borehole drilling.

- (6) The screen sections shall be 20 feet long, unless a shorter length is required to obtain the specified lengths of well screen.
- (7) Section ends shall be machined flat perpendicular to the axis of the casing and shall not vary more than 0.010 inch at any point from a true plane at right angles to the axis of the casing.

F. Well Casing and Screen Collars

- (1) For field assembly by welding, well casing and screen section ends shall have collars of the same thickness and physical properties as the corresponding casing or screen section. Collars shall be a minimum of five (5) inches wide for blank well casing and four (4) inches wide for well screen.
- (2) Clearance between the well casing or screen outside diameter and the adjacent collar inside diameter shall be between 1/32 inch and 3/32 inch.
- (3) The inside edge of the collars and the outside edge of the adjacent casing section shall be ground or sufficiently scarfed to remove sharp edges, burrs, and welding to allow for proper assembly of adjacent casing and screen sections.
- (4) Collars shall have three (3) peep holes to allow for proper alignment of adjacent casing sections. The peep holes shall be equally spaced around the circumference of the collar.

G. Gravel Fill Pipe

- (1) Gravel fill pipe shall be three (3)-inch diameter Schedule 40 black steel pipe.
- (2) Mill certification shall be submitted to the City a minimum of five (5) working days prior to borehole drilling.
- (3) For field assembly by welding, section ends shall be beveled for butt welding or have collars of the same thickness and physical properties as the corresponding casing section. If used, the collars and the outside edge of the adjacent casing section shall be ground or sufficiently scarfed to remove sharp edges and burrs.

H. Sounding Pipes

- (1) The sounding pipes shall be two (2)-inch diameter Schedule 10 stainless steel pipe.
- (2) Mill certification shall be submitted to the City a minimum of five (5) working days prior to borehole drilling.
- (3) For field assembly by welding, section ends shall have collars of the same thickness and physical properties as the corresponding casing section. The inside edge of the collars and the outside edge of the adjacent casing section shall be ground or sufficiently scarfed to remove sharp edges and burrs.
- (4) The Contractor shall provide “U”-shaped brackets, fabricated of the same material as the sounding pipe, to secure the sounding pipe to the well casing assembly during installation.

I. Sounding Ports

- (1) The Contractor shall provide two (2) sounding ports to serve as an inlet structure from the sounding pipes into the well casing.
- (2) The sounding ports shall have the same thickness and physical properties as the corresponding well casing section.
- (3) The sounding ports shall have no sharp edges or other obstructions that would cause damage to equipment, or otherwise impede the use of the sounding port to lower equipment into the well.
- (4) The sounding port dimensions are shown in Drawing W-4 of the Plans.
- (5) The Contractor shall submit a Shop Drawing of the sounding ports to the City a minimum of five (5) working days prior to borehole drilling.

J. Centralizers

- (1) Centralizers shall be made of the same material as the adjacent casing section, and shall be welded directly to the casing.
- (2) Centralizers shall be nominally 5/16 inch thick, two (2) inches wide, 36 inches long, bent to have a minimum of one (1) linear foot of bearing surface parallel to and at least four (4) inches away from the casing.

8.20 Methods

A. Maintaining Drilling Fluid Circulation

- (1) Prior to beginning the installation of the well casing, well screen, and accessory pipes, the Contractor shall circulate drilling fluids until all of the following have occurred:
 - a. Circulation has continued for a minimum of 30 minutes, or until one and one-half (1 1/2) borehole volumes have been circulated, whichever is longer.
 - b. Two (2) consecutive measurements of drilling fluid properties, made a minimum of 30 minutes apart, confirm that the specified drilling fluid properties have been obtained after the minimum circulation time.
- (2) The Contractor shall continue to circulate drilling fluid through the tremie pipe throughout the installation of the well casing, well screen, and accessory pipes. The tremie pipe shall extend to the total depth of the borehole.

B. Orientation of Accessory Pipes

- (1) The orientation of the accessory pipes will be given to the Contractor at the preconstruction meeting.
- (2) The accessory pipes shall be clearly labeled.

C. Welding Program

- (1) All welding shall be performed by certified welders.

- (2) All welding rods and techniques shall be appropriate for the material(s) being welded.
- (3) The Contractor shall prepare a Welding Program that includes:
 - a. Documentation of welder certification.
 - b. The type of welding rod to be used to connect each material in the well casing and screen assembly, and the accessory pipes.
 - c. Specific techniques appropriate to the various material types and thicknesses to be welded.
- (4) The Welding Program shall be submitted to the City a minimum of five (5) working days prior to the beginning of borehole drilling.

D. Gravel Fill Pipe

- (1) The gravel fill pipe shall be installed to the specified depth before installation of the well casing and screen assembly.
- (2) The gravel fill pipe joints shall be welded and shall be watertight. All peep holes (if used) shall be welded closed.
- (3) Nothing shall be added to the gravel fill pipe during construction unless specifically authorized by the City.
- (4) The gravel fill pipe, when installed to the specified depth, shall extend one (1) foot above ground surface.

E. Well Casing and Screen Assembly

- (1) The well casing and screen assembly shall be suspended in tension from the surface throughout installation. The use of float plugs is prohibited. The Contractor shall not drive or “spud” the well casing and screen assembly.
- (2) The Contractor shall assemble the well casing and screen assembly as shown in the Plans, and shall install the well casing and screen assembly to the specified depth, so the screen sections are positioned at the depths shown in the Plans.
- (3) The Contractor shall install the sounding port as shown in the Plans, so the sounding port is positioned at the depth shown in the Plans. The joint between the sounding port and the well casing shall be watertight. All rough edges and burrs along the lower edge of the joint between the sounding port and the well casing shall be ground smooth.
- (4) Contractor shall lap-weld the well casing and screen joints during installation, with a minimum of two (2) passes per circumference. All joints shall be watertight. All peep holes shall be welded closed.
- (5) The well casing and screen assembly, when installed to the specified depth, shall extend three (3) feet above ground surface.

F. Centralizers

- (1) Contractor shall weld sets of four (4) centralizers onto the well casing and screen assembly during installation.
- (2) Centralizers shall only be welded to the well casing, or welding rings. Centralizers shall not be welded to the well screen.
- (3) Each set of four (4) centralizers shall be spaced equally around the circumference of the well casing and screen assembly and shall be oriented the same.
- (4) Sets of centralizers shall be installed above and below the well screen section and every 80 feet along the well casing and screen assembly.

G. Sounding Pipe Assembly

- (1) The sounding pipes shall be installed concurrently with the well casing and screen assembly.
- (2) Each sounding pipe shall be welded to its corresponding sounding port.
- (3) The sounding pipe joints shall be welded and shall be watertight.
- (4) Each sounding pipe shall be attached to the well casing and screen assembly with “U”-shaped brackets that are welded to the well casing, retaining the sounding pipe parallel to the well casing and screen assembly but allowing for some vertical movement of the sounding pipe. The “U”-shaped brackets shall not be welded to the well screen. The “U”-shaped brackets shall be spaced no more than 80 vertical feet apart along the well casing and screen assembly, except where longer sections of well screen are present, in which case “U”-shaped brackets shall be placed above and below the screen sections. The sounding pipe shall not be welded to the “U”-shaped brackets or to the well casing and screen assembly.
- (5) The sounding pipe, when installed to the specified depth, shall extend one (1) foot above ground surface.
- (6) The sounding pipe shall not be retained against the well casing and screen assembly within 40 feet of ground surface. A spacer bar shall be welded between the well casing and the sounding pipe just below ground surface, so the sounding pipe rests against the conductor casing at ground surface.

BID ITEM NO. 9 – GRAVEL ENVELOPE AND TRANSITION SEAL

8.21 Scope of Work

A. This bid item shall include the following:

- (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
- (2) Installing the gravel envelope between the borehole and the well casing and screen assembly, and performing initial consolidation of the gravel envelope.

8.22 Measurement and Payment

- A. This bid item will be measured to the nearest unit as the number of linear feet successfully installed.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:
 - (1) Bid Item No. 9 – Gravel Envelope and Transition Seal.

8.23 Materials and Equipment

A. Gravel

- (1) Gravel envelope material shall be CEMEX “Monterey Sand” or as approved by the City.
- (2) The gravel envelope shall have a gradation of 6 x 12.
- (3) Gravel envelope material shall comply with the Manufacturer’s Specifications, as determined by the City through sieve analysis of selected samples of the gravel envelope material.
- (4) Gravel envelope material shall be well-rounded, washed, and free of organic materials.
- (5) Contractor shall submit a sieve analysis of a recent production run and 500 grams of gravel to the Engineer for approval prior to commencing with borehole drilling.
- (6) Contractor shall submit a shop drawing illustrating how the gravel envelope will be installed.

B. Fine Sand

- (1) Fine sand shall be 30 mesh gradations and consist of sound, non-reactive material. Crushed aggregate will not be accepted. The sand shall be free of vegetative matter. A sample of the sand shall be submitted to the City prior to installation for approval.

C. Sodium Hypochlorite

- (1) Sodium hypochlorite shall be provided in a liquid solution. No powder or pellet products will be allowed.
- (2) “Regular” household bleach or liquid pool chlorine may be used. No fragranced products, or other products with additives will be allowed.

D. Gravel Consolidation Tool

- (1) The Contractor shall provide a wire-line swab tool or bailer for initial consolidation of the gravel envelope. The selected wire-line tool shall be approved by the City prior to use.

8.24 Methods

A. General Requirements

- (1) The Contractor shall not add anything other than fresh water to the gravel fill pipe unless specifically authorized by the City.
- (2) Gravel envelope material shall be stored in a manner that prevents foreign material from being mixed with the gravel envelope material.
- (3) A minimum of five (5) working days prior to beginning borehole drilling, the Contractor shall provide the City with a diagram showing the planned gravel envelope installation equipment and method.
- (4) At the time of the geophysical surveys, the Contractor shall provide the City with a revised estimate of the volume of gravel required to construct the well as specified, based on the actual borehole diameter as measured during the caliper survey.

B. Gravel Installation

- (1) Gravel envelope material shall be placed in the annular space between the borehole and the well casing and screen assembly, from the bottom of the borehole to top of the gravel envelope, as specified in the Plans.
- (2) Gravel envelope material shall be placed through a tremie pipe. The tremie pipe shall be installed within 10 feet of the bottom of the borehole before gravel placement begins, and shall be withdrawn as the gravel is placed. The tremie pipe shall be no more than 30 feet above the top of the gravel during placement.
- (3) Gravel envelope material shall be placed with conditioned drilling fluid. No contaminated fluid or water shall be used to place gravel envelope material. The Contractor shall exercise care to avoid creating a density inversion during placement of the gravel envelope material.
- (4) Gravel envelope material shall be disinfected as it is installed by adding 1/2 gallon of 5.5% sodium hypochlorite solution to every 3,000 pound “super sack” of gravel. If a different concentration of sodium hypochlorite solution is used, this proportion shall be adjusted accordingly.
- (5) Once the gravel envelope has been placed as specified, the Contractor shall resume circulation of drilling fluid through the tremie pipe.

C. Fine Sand Transition

- (1) Fine sand shall be installed immediately above the gravel envelope.
- (2) Fine sand shall be placed in the annular space between the borehole and the well casing, as specified in the Plans.
- (3) Fine sand shall be placed through a tremie pipe. The tremie pipe shall be installed within five (5) feet of the top of the gravel envelope before placement of the fine sand material begins.

D. Initial Consolidation

- (1) The Contractor shall begin initial consolidation of the gravel envelope by working the selected wire-line gravel consolidation tool opposite the screen

sections of the well. Initial consolidation shall continue for a minimum of 30 minutes, or until no measurable settling of the gravel envelope occurs with further initial consolidation.

- (2) The volume of gravel envelope material placed shall be equal to or greater than the calculated volume of the annular space being filled, based on the actual borehole diameter as measured in the caliper survey. If the volume of gravel envelope material placed is less than the calculated volume of the annular space being filled, it shall be considered an indication that voids are present in the gravel envelope, and the Contractor shall be required to perform additional consolidation of the gravel envelope, or other remedies. No such remedies shall be performed without the authorization of the City.

BID ITEM NO. 10 – ANNULAR SEAL

8.25 Scope of Work

A. This bid item shall include the following:

- (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
- (2) Installing the annular seal between the borehole/conductor casing and the well casing and screen assembly, and allowing the annular seal to cure for 24 hours.

8.26 Measurement and Payment

A. This bid item will be measured to the nearest unit as the number of linear feet successfully installed.

B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:

- (1) Bid Item No. 10 – Annular Seal.

8.27 Materials and Equipment

A. Sand-Cement Grout

- (1) Sand-cement grout shall consist of a mixture of ASTM C150, Type II cement, sand, and water in the proportion of not more than two (2) parts, by weight, of sand to one (1) part of cement with about seven (7) gallons of water per 94-pound sack of cement. This is equivalent to a 10.3-sack mix.
- (2) The water used to prepare the sand-cement grout shall be of drinking water quality, compatible with Type II cement, and free of contamination and suspended matter.
- (3) The sand-cement grout shall be well mixed and free of clumps.

B. Cement Pump

- (1) The cement pump shall be capable of pumping the sand-cement grout under pressure to the specified depth.

- (2) The cement pump shall be equipped with a pressure gage to allow for assessment of the force being exerted by the cement pump.

8.28 Methods

A. Annular Seal

- (1) Annular seal shall be pumped under pressure via tremie pipe. The tremie pipe shall be installed within five (5) feet of the top of the fine sand transition before placement of the seal begins. Tremie pipe shall be withdrawn as the seal is placed to avoid creating excessive pressure. Tremie pipe shall remain submerged in sand-cement grout throughout the entire seal placement.
- (2) The annular seal shall be placed in one continuous lift. The tremie pipe shall be installed within five (5) feet of the top of the fine sand transition before placement begins.
- (3) The Contractor shall place a grate or screen over the cement pump hopper to remove gravel and clumps from the sand-cement grout prior to placement.
- (4) The sand-cement grout shall be pumped until it reaches ground surface. Once the sand-cement grout reaches ground surface, the Contractor shall withdraw the tremie pipe.
- (5) The annular seal shall be allowed to cure undisturbed for a minimum of 24 hours.
- (6) No fluids shall be introduced inside the well casing during annular seal placement.

BID ITEM NO. 11 – TEST PUMP INSTALLATION

8.29 Scope of Work

A. This bid item shall include the following:

- (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
- (2) Transporting test pump personnel, equipment, and materials to the project site.
- (3) Installing and removing the test pump and related equipment.
- (4) Removing foreign material and sediment from the well before installing and after removing the test pump.
- (5) Demobilizing test pump personnel, equipment and materials from the project site.

8.30 Measurement and Payment

A. This bid item will be paid as a lump sum.

B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:

- (1) Bid Item No. 11 – Test Pump Installation.
- C. This bid item will be paid according to the following schedule:
 - (1) 70 percent after transporting test pump personnel, equipment, and materials to the project site and installing the test pump and related equipment.
 - (2) 30 percent after removing the test pump and related equipment and transporting test pump personnel, equipment, and materials from the project site (demobilization).

8.31 Materials and Equipment

A. General Requirements

- (1) Contractor shall provide, mobilize to the project site, set up, operate, maintain in good working condition, and demobilize from the project site, all of the equipment listed in this section.
- (2) The test pump and related equipment shall be capable of performing all development and test pumping as specified.
- (3) All measurement devices are subject to approval by the City.

B. Vertical Turbine Test Pump

- (1) Vertical turbine test pump shall be capable of producing, and shall be equipped to produce, between 25 percent and 200 percent of the design capacity from a depth of 220 feet below ground surface.
- (2) No foot valve shall be installed on the column pipe.

C. Test Pump Engine and Drive Shaft

- (1) Test pump engine and drive shaft assembly shall be capable of continuously operating as required to produce the specified minimum flow rate and discharge head.
- (2) Test pump engine and drive shaft assembly shall be capable of pumping and surging, and shall not have a non-reverse ratchet installed.

D. Water Level Measurement Device

- (1) Water level measurement device shall be capable of measuring water levels to the nearest 0.01 foot, with measurements repeated every minute.

E. Stop Watch

- (1) Contractor must provide a stopwatch or other device for accurately measuring the elapsed time during development and test pumping to the nearest second.

F. Discharge Assembly

- (1) Discharge assembly shall be of suitable size, length, and configuration to direct the discharge during development and test pumping to the specified location without generating nuisance water at the project site.

- (2) Discharge assembly shall be equipped with a totalizer, flowmeter, and Rossum centrifugal sand tester. Equipment, as installed, shall be accurate for measuring instantaneous flow rate, total volume pumped, and sand content. Discharge assembly shall also be equipped with a tap for water quality sampling.
- (3) Discharge assembly shall be equipped with a valve that can be adjusted to allow the totalizer and flowmeter function properly at flow rates between 25 percent and 200 percent of the design capacity.
- (4) Contractor shall provide erosion control at the discharge point, including as necessary: plastic sheeting, energy dissipating devices, rip-rap, and other erosion control materials. Erosion control shall be adequate to prevent damage to the discharge point.

G. Wire-Line Bailer

- (1) Contractor shall provide a wire-line bailer and all associated equipment to properly remove sediment from the well.

8.32 Methods

- A. Contractor shall provide, mobilize to the project site, set up, operate, maintain in good working condition, and demobilize from the project site, all of the equipment listed in this section.
- B. After uninstalling the test pump, the Contractor shall remove all sediment from the sump of the well using a wire-line bailer. Contractor shall also remove any foreign material, including oil and grease, from the well.

BID ITEM NO. 12 WELL DEVELOPMENT

8.33 Scope of Work

- A. This bid item shall include the following:
 - (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
 - (2) Developing the well by open-ended airlifting, swab-airlifting, and pumping for the minimum times specified, or until the well meets the turbidity, sand content, and efficiency requirements, whichever is longer.
 - (3) Providing and placing AQUA-CLEAR™ PFD, and allowing the well to remain idle for 12 to 24 hours.

8.34 Measurement and Payment

- A. This bid item will be paid as a lump sum.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:
 - (1) Bid Item No. 12 – Well Development.

8.35 Materials and Equipment

A. Swab-Airlifting Tool

- (1) The swab-airlifting tool shall attach to the end of the drill pipe, and shall consist of two rubber flanges. The rubber flanges shall be spaced no more than 10 feet apart. The outside diameter of the rubber flanges shall be no more than 1/8 inch smaller than the inside diameter of the well screen.

B. Dispersant Chemical

- (1) The only approved dispersant chemical is Baroid Industrial Drilling Products AQUA-CLEAR™ PFD. No other dispersant chemicals may be used without the pre-authorization of the City.
- (2) The Contractor shall provide and utilize two (2) gallons of AQUA-CLEAR™ PFD.
- (3) The Contractor shall provide Material Safety Data Sheets for all chemicals the Contractor anticipates using during well development.

8.36 Methods

- A. A minimum of five (5) working days prior to beginning borehole drilling, the Contractor shall provide the City with a diagram of the planned configuration of equipment and discharge piping to be used for well development.

B. Record-Keeping

- (1) The Contractor shall maintain detailed records during well development, and shall make records available to the City upon request.
- (2) Static water level shall be recorded at the beginning of each day of well development, before any water has been moved.
- (3) The following parameters shall be recorded at least every 30 minutes during well development:
 - a. Time, measured to the nearest minute.
 - b. Flow rate, measured to the nearest 100 gallons per minute.
 - c. Water level, measured to the nearest 0.1 foot.
 - d. Drawdown from static water level, calculated to the nearest foot.
 - e. Instantaneous specific capacity, calculated to the nearest whole number.
 - f. Sand production, to the nearest 0.01 cubic centimeters.
 - g. Any observations of unusual or changed conditions, including: odor, gas, color, or other conditions.

C. Open-Ended Airlifting

- (1) The Contractor shall begin open-ended airlifting through the drill pipe within 36 hours of the placement of the annular seal.

- (2) The Contractor shall begin open-ended airlifting gradually to avoid creating differential pressures that could lead to well casing collapse.
- (3) Open-ended airlifting shall continue for a minimum of three (3) hours, or until all of the following have occurred:
 - a. Drilling fluid is removed from the well.
 - b. No measurable settling of the gravel envelope occurs with further open-ended airlifting.
- (4) The Contractor shall airlift sediment out of the well sump before beginning swab-airlifting.

D. Swab-Airlifting

- (1) The Contractor shall begin swab-airlifting immediately after open-ended airlifting.
- (2) Swab-airlifting shall begin at the bottommost screen section and work upward. Swab-airlifting shall be conducted by moving the swab-airlifting tool slowly and uniformly up and down over one length of drill pipe for the specified time before continuing upward.
- (3) Swab-airlifting shall be performed as follows:
 - a. Swab-airlift for a minimum of six (6) minutes per foot of screen.
 - b. Swab in the specified amount of AQUA-CLEAR™ PFD evenly over the screens, diluting with 500 parts water to one (1) part AQUA-CLEAR™ PFD prior to placement.
 - c. Allow the AQUA-CLEAR™ PFD to remain idle in each screen section for 12 to 24 hours.
 - d. Swab-airlift for a minimum of eight (8) minutes per foot of screen.
- (4) The Contractor shall continue swab-airlifting beyond the minimum requirements until the Contractor is confident that the turbidity and sand production requirements will be met after development pumping. If the turbidity and sand production requirements cannot be met after development pumping, the Contractor will be required to perform additional swab-airlifting and development pumping.
- (5) The Contractor shall airlift sediment out of the well sump with open-ended pipe before test pump installation.

E. Development Pumping

- (1) Development pumping shall begin within five (5) days of swab-airlifting.
- (2) Development pumping shall be conducted by alternately pumping and surging at a specific flow rate, until pumping and surging at that flow rate produces visibly clear water.

- (3) Development pumping shall begin at approximately 25% of the design capacity, and shall gradually increase to 200% of the design capacity as turbidity and sand requirements are met during development pumping.
- (4) The storm drain system at the project site is not capable of receiving discharge flow rates at 200% of the wells design capacity. At this higher rate of pumping, the Contractor will be required to direct discharge water to both the storm drain system and the City's on-site sludge pond to ensure that the storm drain system does not surcharge out of the system.
- (5) Development pumping shall continue for a minimum of 24 hours, or until all of the following have occurred:
 - a. The pumped water complies with the turbidity and sand content requirements.
 - b. The well complies with the well efficiency requirement.
 - c. No movement of the gravel envelope has occurred during the last eight (8) hours of development pumping.
- (6) At the conclusion of development pumping, the Contractor shall determine the required settings to obtain the flow rates for well and aquifer testing, as determined by the City based on well development records.

BID ITEM NO. 13 – WELL AND AQUIFER TESTING

8.37 Scope of Work

- A. This bid item shall include the following:
 - (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
 - (2) Performing well and aquifer testing.

8.38 Measurement and Payment

- A. This bid item will be measured to the nearest one-half unit as the number of hours satisfactorily performed.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:
 - (1) Bid Item No. 13 – Well and Aquifer Testing.

8.39 Materials and Equipment

- A. The Equipment shall be the same as provided in Section 8.29 – Test Pump Installation.

8.40 Methods

- A. General Testing Requirements

- (1) Well and aquifer testing shall begin within 12 to 60 hours of well development.
- (2) The well shall not have been pumped within 12 hours of the beginning of any well and aquifer test.
- (3) The flow rate shall be maintained within plus or minus five (5) percent of the specified flow rate for each test. If, at any time during the test, the flow rate does not fall within this range, the Contractor shall discontinue the test, allow for full water level recovery, and restart the test. No payment will be made for the discontinued test.
- (4) If any interruptions in pumping occur that are longer than one (1) percent of the elapsed duration of the test, the Contractor shall discontinue the test, allow for full water level recovery, and restart the test. No payment will be made for the discontinued test.

B. Record-Keeping

- (1) The Contractor shall maintain detailed records during well and aquifer testing, and shall make records available to the City upon request.
- (2) The **actual time** when each measurement is made shall be recorded, even if it differs from the measurement schedule.
- (3) The following measurements shall be recorded at the beginning of each well and aquifer test, before any water has been pumped.
 - a. Static water level, measured to the nearest 0.01 foot.
 - b. Totalizer reading, measured to the smallest unit on the totalizer gauge.
- (4) The following measurements shall be recorded during well and aquifer testing:
 - a. Elapsed time, measured to the nearest 15 seconds.
 - b. Flow rate, measured to the nearest 100 gallons per minute.
 - c. Totalizer reading, measured to the smallest unit on the totalizer gauge.
 - d. Water level, measured to the nearest 0.01 foot.
 - e. Drawdown from static water level, calculated to the nearest 0.01 foot.
 - f. Sand production, to the nearest 0.01 cubic centimeters.
 - g. Any adjustments to the flow rate, interruptions in pumping, or other changes in testing conditions.

C. Measurement Schedule

- (1) The times specified in this section are elapsed times since the pump is started or stopped. Measurements shall continue for the specified duration of pumping and recovery.
- (2) Elapsed time and water level measurements shall be made according to the following schedule:
 - a. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 minutes.

- b. 14, 16, 18, and 20 minutes.
 - c. 25, 30, 35, 40, 45, 50, 55, and 60 minutes.
 - d. 70, 80, 90, 100, 110, and 120 minutes.
 - e. 150, 180, 210, 240, 270, 300, 330, and 360 minutes.
 - f. Every 60 minutes for the remainder of the test.
- (3) Sand production measurements shall be made at least once every five (5) minutes for the first 30 minutes of pumping, and every one (1) hour for the duration of each test.
 - (4) Flow rate and totalizer measurements shall be made during pumping at least once for every three (3) water level measurements, or once every hour, whichever is more frequent. A final measurement shall be made after the pump is turned off.
 - (5) Drawdown shall be calculated for each water level measurement. Drawdown may be calculated after a test is finished.

D. Short-Term Tests

- (1) The short-term tests shall consist of three (3) consecutive tests that each include three (3) hours of pumping followed by ½ hour of recovery.
- (2) The flow rates for the short-term tests shall be determined by the City based on well development records.

E. Long-Term Test

- (1) The long-term test shall consist of 12 hours of pumping.
- (2) The flow rate for the long-term test shall be determined by the City based on well development records.
- (3) Water quality samples will be collected by the City during the long-term test.

BID ITEM NO. 14 – PLUMBNESS AND ALIGNMENT TESTING

8.41 Scope of Work

- A. This bid item shall include the following:
 - (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
 - (2) Performing plumbness and alignment testing.

8.42 Measurement and Payment

- A. This bid item will be paid as a lump sum.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:

(1) Bid Item No. 14 – Plumbness and Alignment Testing.

8.43 Materials and Equipment

A. Drawworks for Running Plumbness Tool

- (1) The drawworks shall measure the depth of the measurement tool to the nearest foot.
- (2) The drawworks shall be calibrated such that the error in depth measurement does not exceed one (1) percent.
- (3) The Contractor shall verify calibration of the drawworks upon request. Calibration shall be to within 0.25 percent.

B. Alignment Tool

- (1) The alignment tool shall be 40 feet long, and shall be rigid.
- (2) The outside diameter of the alignment testing tool shall be one (1) inch less than the inside diameter of the blank well casing.
- (3) The alignment tool shall be one of the following configurations:
 - a. A length of pipe with the specified outside diameter.
 - b. A “dummy”, consisting of a length of base pipe with a minimum diameter of six (6) inches, with 12-inch long sections (“rings”) of pipe with the specified outside diameter. Three (3) rings shall be rigidly attached to the base pipe so the axis of the base pipe is in line with the axes of the rings. The rings shall be located at each end of the base pipe, and in the center of the base pipe. A drawing of an acceptable alignment “dummy” is shown in the Plans.

C. Plumbness Tool and Data

- (1) The plumbness tool shall be a digital gyroscopic deviation device that accurately measures inclination, azimuth, true vertical depth, departures, and plane of closure (displacement).
- (2) The plumbness data shall be presented in full-color reports with plan, vertical, and three-dimensional views of the casing. Electronic data shall be viewable in the Drift-Pac ® Viewer Module or pre-approved equal.

8.44 Methods

- A. Plumbness and alignment testing may be performed at any time after the annular seal has cured and before the video survey is performed.
- B. The plumbness and alignment tests shall accurately measure the plumbness and alignment of the completed well, and shall be presented in a manner that allows the City to fully evaluate whether the well meets the plumbness and alignment requirements.
- C. Alignment Testing

- (1) Alignment testing shall be performed by lowering the alignment tool into the well from the ground surface to the topmost well screen section. No part of the alignment tool shall be allowed to enter any section of well screen.

D. Plumbness Testing

- (1) Plumbness testing shall be performed by a City approved subcontractor.
- (2) Plumbness testing shall be performed by lowering the plumbness tool into the well from the ground surface to the full well depth.
- (3) Measurements shall include station depth, inclination, azimuth, true vertical depth, departures, and plane of closure (displacement). Measurements shall be made every 10 feet from ground surface to the topmost well screen section. Measurements shall be made every 50 feet from the topmost well screen section to the full well depth.
- (4) Upon completion of the plumbness testing, the Contractor shall provide the City with two (2) field hard copy reports and one (1) electronic copy of the plumbness test. Within one (1) week of completion of the plumbness test, the Contractor shall provide the City with four (4) final hard copies, and one (1) thumb drive of the plumbness test.

BID ITEM NO. 15 – VIDEO SURVEY

8.45 Scope of Work

A. This bid item shall include the following:

- (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
- (2) Performing a video survey.

8.46 Measurement and Payment

A. This bid item will be paid as a lump sum.

B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:

- (1) Bid Item No. 15 – Video Survey.

8.47 Materials and Equipment

A. Video Survey Tool

8.48 Materials and Equipment

A. Video Survey Tool

(1) Drawworks

- a. The drawworks shall measure the depth of the measurement tool to the nearest 0.10 foot.

- b. The drawworks shall be calibrated such that the error in depth measurement does not exceed one (1) percent.
 - c. The Contractor shall verify calibration of the drawworks upon request. Calibration shall be to within 0.25 percent.
- (2) The video survey tool shall be equipped with centralizers, and shall include color cameras for the downhole and focusing side-scan views.
 - (3) The cameras shall be focused, and shall provide a clear view of the well casing with no blurs or other obstructions.

8.49 Methods

A. Video Survey

- (1) The video survey shall be complete and of adequate quality to allow for full inspection of the well structure so the City can determine if the well meets all of the Contract requirements.
- (2) Before running the video survey, the Contractor shall run sufficient potable water into the well to allow for clear viewing of the well structure.
- (3) The video survey shall be run at a maximum rate of 30 feet per minute.
- (4) The downward pass of the video survey shall cover the entire well, and shall be conducted entirely with the downhole view. The depth of any features or anomalies shall be noted for further inspection on the upward pass.
- (5) The upward pass of the video survey shall cover the entire well, and shall be conducted with the side-scan view. The camera shall rotate while moving upward, to provide complete inspection of all well screens. Each casing joint shall be fully inspected with a 360-degree rotation of the side-scan camera. Any features or anomalies (including the sounding port) shall be fully inspected with the side-scan camera.
- (6) Immediately upon completion of the video survey, the Contractor shall provide two (2) copies of the video survey in DVD format. Both copies shall show the full video survey with an accurate depth displayed to the nearest one (1) foot.

BID ITEM NO. 16 – SITE CLEANUP AND RECORDS

8.50 Scope of Work

A. This bid item shall include the following:

- (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
- (2) Performing site cleanup, providing complete well construction records, and securing the wellhead.

8.51 Measurement and Payment

- A. This bid item will be paid as a lump sum.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:
 - (1) Bid Item No. 16 – Site Cleanup and Records.

8.52 Materials and Equipment

- A. Well Cover
 - (1) Contractor shall provide a lockable, removable well cover that secures the wellhead. The well cover shall be adequate to prevent tampering with the well or the introduction of foreign materials into the well, and to ensure that the well is not a hazard. The cover shall prevent rainwater from entering the well, but need not be watertight. The Contractor shall provide a lock and key for the well cover.
- B. Accessory Pipe Covers
 - (1) The Contractor shall provide screw-on caps for the gravel fill pipe and the sounding pipes.

8.53 Methods

- A. Site Cleanup
 - (1) Contractor shall remove all materials that result from the Contractor's activities, whether on or off the project site, including waste materials, rubbish, and debris.
 - (2) Contractor shall restore all areas where the Contractor has performed work to their approximate original condition.
 - (3) Contractor shall leave all areas where the Contractor has performed work clean and ready for use by the City.
 - (4) Contractor shall muck out and backfill any excavations, including mud pits (if used). Backfill shall be engineered to obtain a relative compaction of 90% per ASTM D-1557, unless otherwise approved by the City.
- B. Wellhead Security
 - (1) Contractor shall install and lock the well cover and shall install the caps on the accessory pipes.
 - (2) At the City's request, the Contractor shall tack-weld each of the covers in place to further secure them.
 - (3) The Contractor shall provide the City with all keys to the well cover lock.
- C. Labeling of Accessory Pipes
 - (1) The Contractor shall clearly label the accessory pipes (not only on the cap).
- D. Records

- (1) The Contractor shall provide the City with complete records and as-built construction information for the project.
 - a. California Department of Water Resources Well Completion Report.
 - b. All daily reports.
 - c. All records of drilling fluid measurements.
 - d. All mill certifications, cement tickets, and any other documentation of materials installed.
 - e. Contractor's tallies of materials installed.
 - f. All well development and testing records.

BID ITEM NO. 17 – WELL DISINFECTION

8.54 Scope of Work

- A. This bid item shall include the following:
 - (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
 - (2) Providing interim and final well disinfection.
 - (3) The Contractor shall provide for disinfection as soon as construction, development, test pumping, and video survey work has been completed.

8.55 Measurement and Payment

- A. This bid item will be paid as a lump sum.
- B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:
 - (1) Bid Item No. 17 – Well Disinfection.

8.56 Materials and Equipment

- A. Sodium Hypochlorite
 - (1) Sodium hypochlorite shall be provided in a liquid solution. No powder or pellet products will be allowed.
 - (2) Sodium hypochlorite shall contain no additives and shall be NSF Standard 60 certified.
 - (3) Sodium hypochlorite shall be provided in the original sealed container.
 - (4) Sodium hypochlorite shall be recently purchased and properly stored to ensure the concentration of the solution has not degraded.
 - (5) The Contractor shall provide Material Safety Data Sheets for all chemicals the Contractor anticipates using during well disinfection.

8.57 Methods

A. Final Disinfection

- (1) Final well disinfection shall be accomplished by running hose or tremie pipe to the full depth of the well and evenly placing diluted sodium hypochlorite in the well while raising the hose or tremie pipe.
- (2) Sodium hypochlorite shall be diluted with water to obtain a solution that, when placed in the well, will provide a minimum concentration of 200 parts per million of available chlorine for at least 24 hours.
- (3) After placing the diluted sodium hypochlorite in the well, the Contractor shall run approximately 500 gallons of potable water into the well.
- (4) All accessible portions of the well above the water level shall be kept damp for a period of at least 20 minutes with a solution containing at least 200 parts per million of available chlorine.

B. Interim Disinfection

- (1) Contractor shall disinfect the well if it remains idle for more than three (3) days.
- (2) Interim disinfection shall be the same as final disinfection, except that only 10 percent of the amount of sodium hypochlorite used in final disinfection shall be used in interim disinfection.

C. The Contractor shall not discharge any chlorinated water.

D. After final disinfection, Contractor shall secure the wellhead with the locking well cover.

BID ITEM NO. 18 – STANDBY TIME

8.58 Scope of Work

A. This bid item shall include the following:

- (1) Provision of all labor, equipment, and materials necessary for the successful completion of this bid item.
- (2) Ceasing operations and remaining on standby at the project site upon request by the City or the Engineer.

8.59 Measurement and Payment

A. This bid item will be measured to the nearest one-half unit as the number of hours satisfactorily performed.

B. This bid item, satisfactorily completed, will be paid at the unit prices set forth in the Bid Schedule for:

- (1) Bid Item No. 18 – Standby Time.

8.60 Materials and Equipment

A. Not Used.

8.61 Methods

- A. Standby time must be pre-authorized by the City.
- B. No payment will be made for idle time specified under other bid items.
- C. During standby time, the Contractor shall remain at the project site and shall assist the City as requested.

End of Section

City of Sacramento



Plans and Specifications for:

E.A. Fairbairn Water Treatment Plant Production Well

Prepared by:

WOOD RODGERS, Inc.

3301 C Street, Building 100-B
Sacramento, CA 95816
Tel. 916.341.7760
Fax. 916.341.7767

CERTIFICATIONS AND SEALS PAGE

These specifications and drawings contained herein have been prepared by or under the direction of the following Registered Hydrogeologist:

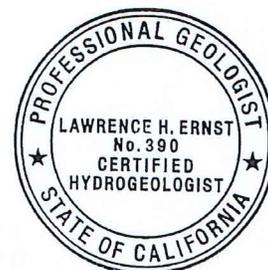
Project Design

Lawrence H. Ernst

Lawrence H. Ernst, PG, CEG, CHG
Principal Hydrogeologist
Wood Rodgers, Inc.
CHG No. 390

1/6/16

Date



Received by

Mark Elbro

City of Sacramento

1/6/16

Date

The undersigned agrees to execute the Agreement and provide City the executed Agreement, the required insurance certificates, endorsements, and waivers of subrogation, and the required surety bonds within ten (10) calendar days after the undersigned's receipt of the City's notice that the undersigned will be recommended for Contract award and prior to award of the Contract by the City Council.

In determining the amount bid by each bidder, City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Proposal. When such a mathematical error appears on the Proposal, the City shall have the right to correct such error and to compute the total amount bid by said bidder on the basis of the corrected figure or figures.

When the unit price of an item is required to be set forth in the Proposal, and the total for the item set forth separately does not agree with a figure derived by multiplying the item unit price times the Engineer's estimate of the quantity of work to be performed for said item, the item unit price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the policy of the City's bidding procedures. The total paid for each such item of work shall be based upon the item unit price and not the total price.

Should the Proposal contain only a total price for an item and the item unit price is omitted, the City shall determine the item unit price by dividing the total price of the item by the Engineer's estimate of the quantity of work to be performed for the item of work.

If the Proposal contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Proposal shall be disregarded.

It is understood that this bid is based upon completion of the work within a period of **ninety (90) CALENDAR days** commencing on the date specified in the Notice to Proceed.

The amount of liquidated damages to be paid by the Contractor for failure to complete the work by the completion date (as extended, if applicable) shall be **one thousand dollars (\$1,000.00) for each calendar day**, continuing to the time at which the work is completed. Such amount is the actual cash value agreed upon as the loss to the City resulting from the default of the Contractor.

The undersigned represents and warrants that he/she has examined the location of the proposed work and is familiar with the conditions at the place where the work is to be done. The undersigned further represents that he/she has reviewed and understands the Plans, Special Provisions, and other contract documents, and the undersigned is satisfied with all conditions for the performance of the work.

Additionally, the undersigned shall include written documentation with the Sealed Proposal of previous satisfactory experience in construction of a new potable well, in accordance with the following:

- **The undersigned shall provide documentation for a minimum of three (3) projects of similar size and scope for the construction of a new potable well performed by the undersigned for a municipality or other public agency within the last five years. The documentation for each project shall describe the work performed, including the size, depth, casing material, and screened section materials of the well, the contract amount and duration, the time period of performance, and shall include the name, address and telephone number of the owner agency or municipality. The documentation also shall include the name of a contact person for each owner who is familiar with the work performed. The above documentation shall be included with the Sealed Proposal.**
- **A Sealed Proposal that does not include the above required documentation may be rejected as non-responsive.**

Please note that information included in the above documentation and/or obtained from such other owner agency or municipality or from another source regarding the bidder's performance on another public project also may be used by the City in determining whether the bidder is a responsible bidder.

The undersigned has carefully checked all of the above figures and understands that the City of Sacramento will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

This proposal shall not be withdrawn for the time periods specified in Section 3-2 of the City of Sacramento Standard Specifications for award of contract to respective low bidders. This proposal is submitted in accordance with Chapter 3.60 of the Sacramento City Code and Sections 1, 2, and 3 of the City of Sacramento Standard Specifications.

In accordance with Standard Specification Section 3-2, the City shall award this contract to the lowest responsible bidder, if such award is made, within forty-five (45) working days after opening of the Proposals. The City reserves the right to reject any and all bids.