



**PURCHASING ITEM
FOR
COUNCIL AGENDA
CP15-057**

1. Agenda Item Number:

30

2. Council Meeting Date:

December 11, 2014

TO: MAYOR & COUNCIL

3. Date Prepared: November 19, 2014

THROUGH: CITY MANAGER

4. Requesting Department: Municipal Utilities

5. SUBJECT: Professional Services Contract to CH2M HILL Engineers, Inc., for development of the Water, Wastewater, and Reclaimed Water Master Plan

6. RECOMMENDATION: Staff recommends City Council award a Professional Services Contract to CH2M HILL Engineers, Inc., for development of the Water, Wastewater, and Reclaimed Water Master Plan, Project No. WW1420.101, in an amount not to exceed \$891,520.

7. BACKGROUND/DISCUSSION: Future development and proposed redevelopment within the City of Chandler requires updates to the Water, Wastewater, and Reclaimed Water Master Plan.

This project will parallel the City's new General Plan development to project build-out demands, future infrastructure, and Citywide infrastructure adequacy (particularly at the Airport, Price Corridor, and Downtown Corridor). The study will also include investigations related to aging infrastructure and water quality concerns.

8. EVALUATION PROCESS: A Request for Qualifications was issued on July 21, 2014. On August 21, 2014, Staff received Statements of Qualifications from four (4) firms for development of the Water, Wastewater, and Reclaimed Water Master Plan. The Selection Committee reviewed the qualifications and selected one (1) firm for recommendation.

Staff recommends contract award to CH2M HILL Engineers, Inc. The contract includes all costs necessary to complete the Water, Wastewater, and Reclaimed Water Master Plan. The costs proposed for this project have been evaluated by Staff and are determined to be reasonable. The contract completion time is 365 calendar days following Notice to Proceed.

9. FINANCIAL IMPLICATIONS:

Cost: \$891,520
Savings: N/A
Long Term Costs: N/A

Fund Source:

<u>Account No.:</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
603.3820.5219.6WA029	Water SDF	Water Master Plan	Yes	\$297,173
614.3910.5219.6WW021	Wastewater SDF	Wastewater Master Plan	Yes	\$594,347
Total:				\$891,520

10. PROPOSED MOTION: Move City Council award a Professional Services Contract to CH2M HILL Engineers, Inc., for development of the Water, Wastewater, and Reclaimed Water Master Plan, Project No. WW1420.101, in an amount not to exceed \$891,520.

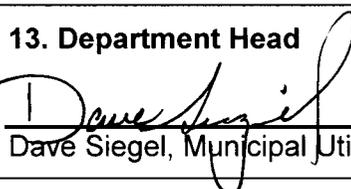
ATTACHMENTS: Contract

APPROVALS

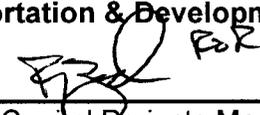
11. Requesting Department


John Knudson, Utilities Engineering Manager

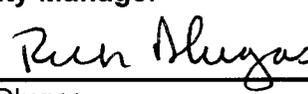
13. Department Head


Dave Siegel, Municipal Utilities Director

12. Transportation & Development


Bob Fortier, Capital Projects Manager

14. City Manager


Rich Dlugas

PROFESSIONAL SERVICES CONTRACT

Project Name: Water-Wastewater-Reclaimed Water Master Plan
Project No. WW1420.101

THIS CONTRACT is made and entered into this ____ day of _____, 2014, by and between the City of Chandler, a Municipal Corporation of the State of Arizona, hereinafter referred to as "CITY", and CH2M Hill Engineers, Inc., a Delaware corporation, licensed in the State of Arizona, hereinafter referred to as "CONSULTANT".

WHEREAS, the Mayor and City Council of the City of Chandler is authorized and empowered by provisions of the City Charter to execute contracts for professional services; and

WHEREAS, CONSULTANT represents that CONSULTANT has the expertise and is qualified to perform the services described in the Contract.

NOW THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties hereto agree as follows:

1. CONTRACT ADMINISTRATOR:

1.1 To provide the professional services required by this Contract CONSULTANT shall act under the authority and approval of City Engineer or designee, (the Contract Administrator), who shall oversee the execution of this Contract, assist the CONSULTANT with any necessary information, audit billings, and approve payments. The CONSULTANT shall channel reports and special requests through the Contract Administrator.

1.2 CITY reserves the right to review and approve any/all changes to CONSULTANT'S key staff assigned to the CITY project by the firm during the term of this Contract.

2. SCOPE OF WORK:

CONSULTANT shall provide those services described in Exhibit A attached hereto and made a part hereof by reference.

3. ACCEPTANCE AND DOCUMENTATION:

Each task shall be reviewed and approved by CITY to determine acceptable completion. All documents, including but not limited to, data compilations, studies, and reports which are prepared in the performance of this Contract, shall be and remain the property of CITY and shall be delivered to CITY before final payment is made to CONSULTANT.

4. FEE SCHEDULE:

For the services described in paragraph 2 of this Contract, CITY shall pay CONSULTANT a fee not to exceed the sum of Eight Hundred Ninety One Thousand Five Hundred Twenty dollars (\$891,520) in accordance with the fee schedule attached hereto as Exhibit B and incorporated herein by reference.

5. TERM:

Following execution of this Contract by CITY, CONSULTANT shall immediately commence work and shall complete all services described herein within Three Hundred Sixty Five (365) calendar days from the date hereof.

6. TERMINATION FOR CAUSE:

This Contract may be terminated by CITY for cause should the CONSULTANT fail to perform any provision of this Contract, including without limitation, for any of the following reasons:

- (a) CONSULTANT abandons Work;
- (b) CONSULTANT assigns or attempts to assign its rights or obligations under this Contract or any part thereof to any third-party (without the prior written consent of CITY);
- (c) CONSULTANT is adjudged bankrupt or insolvent, makes a general assignments for the benefit of creditors, has a trustee or receiver appointed for its property, or files a petition to take advantage of any debtor's act;
- (d) CONSULTANT fails or refuses to perform any obligation under the Contract, or fails to remedy such nonperformance within seven (7) days after its occurrence;
- (e) CONSULTANT fails to comply with any applicable Laws and fails to remedy such nonperformance within seven (7) days after its occurrence;
- (f) CONSULTANT fails to achieve the required dates for performance required pursuant to the Contract.

7. TERMINATION FOR CONVENIENCE:

CITY may at any time and for any or no reason, at its convenience, terminate this contract or any part of the services to be rendered pursuant thereto by written notice to CONSULTANT specifying the termination date. Immediately after receiving such notice, CONSULTANT shall discontinue advancing the work under this Contract and shall deliver to the CITY all drawings, notes, calculations, sketches and other materials entirely or partially completed, together with all unused materials supplied by the CITY.

CONSULTANT shall receive as compensation in full for services performed to date of such termination, a fee for the percentage of work actually completed. This fee shall be a percentage of CONSULTANT (S) fee described in this Contract under paragraph 3 and shall be in the amount to be agreed mutually by CONSULTANT and the CITY. The CITY shall make this final payment within sixty (60) days after CONSULTANT has delivered the last of the partially completed items.

8. OWNERSHIP OF INSTRUMENTS OF SERVICE UPON TERMINATION FOR CAUSE AND/OR FOR CONVENIENCE:

Upon Termination for Cause or for Convenience, the CITY shall have ownership of the Instruments of Service.

9. INDEMNIFICATION:

To the fullest extent permitted by law, but only to the extent caused by the negligence, recklessness or intentional wrong conduct, CONSULTANT, its successors, assigns and guarantors, shall defend, indemnify and hold harmless City and any of its elected or appointed officials, officers, directors, commissioners, board members, agents or employees from and against any and all allegations, demands, claims, proceedings, suits, actions, damages, including, without limitation, property damage, environmental damages, personal injury and wrongful death claims, losses, expenses (including claim adjusting and handling expenses), penalties and fines (including, but not limited to, attorney fees, court costs, and the cost of appellate proceedings), judgments or obligations, which may be imposed upon or incurred by or asserted against the City by reason of this Contract or the services performed or permissions granted under it, or related to, arising from or out of, or resulting from any negligent or intentional actions, acts, errors, mistakes or omissions caused in whole or part by CONSULTANT, or any of its subcontractors, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, relating to the discharge of any duties or the exercise of any rights or privileges arising from or incidental to this Contract, including but not limited to, any injury or damages claimed by any of CONSULTANT's and subcontractor's employees. The amount and type of

insurance coverage requirements set forth in the Agreement will in no way be construed as limiting the scope of indemnity in this paragraph.

10. INSURANCE REQUIREMENTS:

1. General.

A. At the same time as execution of this Contract, CONSULTANT shall furnish the City of Chandler a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to CITY. Provided, however, the A.M. Best rating requirement shall not be deemed to apply to required Worker's Compensation coverage.

B. CONSULTANT and any of its subcontractors, subconsultants or sublicensees shall procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, the insurances set forth below.

C. The insurance requirements set forth below are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract.

D. The City in no way warrants that the minimum insurance limits contained in this Contract are sufficient to protect CONSULTANT from liabilities that might arise out of the performance of the Contract services under this Contract by CONSULTANT, its agents, representatives, employees, subcontractors, sublicensees or subconsultants and CONSULTANT is free to purchase any additional insurance as may be determined necessary.

E. Failure to demand evidence of full compliance with the insurance requirements in this Contract or failure to identify any insurance deficiency will not relieve the CONSULTANT from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Contract.

F. Use of SubContractors: If any work is subcontracted in any way, CONSULTANT shall execute a written Contract with Subcontractor containing the same Indemnification Clause and Insurance Requirements as the City requires of CONSULTANT in this Contract. CONSULTANT is responsible for executing the Contract with the Subcontractor and obtaining Certificates of Insurance and verifying the insurance requirements.

2. Minimum Scope and Limits Of Insurance. CONSULTANT shall provide coverage with limits of liability not less than those stated below.

A. Commercial General Liability-Occurrence Form. CONSULTANT must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than \$2,000,000 for each occurrence, \$4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

B. Automobile Liability-Any Auto or Owned, Hired and Non-Owned Vehicles
Vehicle Liability: CONSULTANT must maintain Business/Automobile Liability insurance with a limit of \$1,000,000 each accident on CONSULTANT owned, hired, and non-owned vehicles assigned to or used in the performance of CONSULTANT's work or services under this Contract. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

C. **Workers Compensation and Employers Liability Insurance:** CONSULTANT must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of CONSULTANT employees engaged in the performance of work or services under this Contract and must also maintain Employers' Liability insurance of not less than \$1,000,000 for each accident and \$1,000,000 disease for each employee.

D. **Professional Liability.** If the Contract is the subject of any professional services or work performed by CONSULTANT, or if CONSULTANT engages in any professional services or work adjunct or residual to performing the work under this Contract, CONSULTANT must maintain Professional Liability insurance covering errors and omissions arising out of the work or services performed by the CONSULTANT, or anyone employed by CONSULTANT, or anyone whose acts, mistakes, errors and omissions the CONSULTANT is legally liable, with a liability limit of \$1,000,000 each claim and \$2,000,000 all claims. In the event the Professional Liability insurance policy is written on a "claims made" basis, coverage must extend for 3 years past completion and acceptance of the work or services, and CONSULTANT, or its selected Design Professional will submit Certificates of Insurance as evidence the required coverage is in effect. The Design Professional must annually submit Certificates of Insurance citing that the applicable coverage is in force and contains the required provisions for a 3 year period.

3. **Additional Policy Provisions Required.**

A. **Self-Insured Retentions Or Deductibles.** Any self-insured retentions and deductibles must be declared and approved by the City. If not approved, the City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to the City, its officers, officials, agents, employees, and volunteers.

B. **City as Additional Insured.** The policies are to contain, or be endorsed to contain, the following provisions:

1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: The City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, CONSULTANT including the City's general supervision of the CONSULTANT; Products and Completed operations of CONSULTANT; and automobiles owned, leased, hired, or borrowed by CONSULTANT.

2. CONSULTANT's insurance must contain broad form contractual liability coverage and must not exclude liability arising out of explosion, collapse, or underground property damage hazards ("XCU") coverage.

3. The City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by CONSULTANT even if those limits of liability are in excess of those required by this Contract.

4. CONSULTANT's insurance coverage must be primary insurance with respect to the City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, agents, and employees shall be in excess of the coverage provided by CONSULTANT and must not contribute to it.

5. CONSULTANT's insurance must 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.

6. Coverage provided by CONSULTANT must not be limited to the liability assumed under the indemnification provisions of this Contract.

7. The policies must contain a severability of interest clause and waiver of subrogation against the City, its officers, officials, agents, and employees, for losses arising from Work performed by CONSULTANT for the City.

8. CONSULTANT, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Contract for a minimum period of 3 years following completion and acceptance of the Work. CONSULTANT must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Contract insurance requirements, including naming the City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insured as required.

9. If a Certificate of Insurance is submitted as verification of coverage, the City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Contract. If any of the required policies expire during the life of this Contract, the CONSULTANT must forward renewal or replacement Certificates to the City within 10 days after the renewal date containing all the necessary insurance provisions.

11. ENTIRE CONTRACT:

This Contract constitutes the entire understanding of the parties and supersedes all previous representations, written or oral, with respect to the services specified herein. This Contract may not be modified or amended except by a written document, signed by authorized representatives or each party.

12. CONFLICT OF INTEREST:

CONSULTANT stipulates that its officers and employees do not now have a conflict of interest and it further agrees for itself, its officers and its employees that it will not contract for or accept employment for the performance of any work or services with any individual business, corporation or government unit that would create a conflict of interest in the performance of its obligations pursuant to this Contract.

Pursuant to A.R.S. Section 38-511, CITY may cancel this Contract within three (3) years after its execution, without penalty or further obligation by CITY if any person significantly involved in initiating, negotiating, securing, drafting or creating this Contract on behalf of CITY is, at any time while this Contract is in effect, an employee of any other party to this Contract in any capacity, or a consultant to any other party of this Contract with respect to the subject matter of this Contract

13. ARIZONA LAW, JURISDICTION AND VENUE, AND FEES AND COSTS:

13.1 Arizona Law. This Contract shall be governed and interpreted according to the laws of the State of Arizona.

13.2 Jurisdiction and Venue. The parties agree that this Contract is made in and shall be performed in Maricopa County. Any lawsuits between the Parties arising out of this Contract shall be brought and concluded in the courts of Maricopa County in the State of Arizona, which shall have exclusive jurisdiction over such lawsuits.

13.3 Fees and Costs. Except as otherwise agreed by the parties, the prevailing party in any adjudicated dispute relating to this Contract is entitled to an award of reasonable attorney's fees, expert witness fees and costs including, as applicable, arbitrator fees; provided, however, that no award of attorney's fees shall exceed ten percent (10%) of the damages awarded the prevailing party unless the non-prevailing party has been determined to have acted in bad faith or in a frivolous manner during the adjudication.

14. ARIZONA LAW:

This Contract shall be governed and interpreted according to the laws of the State of Arizona.

15. REQUIRED COMPLIANCE WITH ARIZONA PROCUREMENT LAW:

Compliance with A.R.S. § 41-4401. Pursuant to the provisions of A.R.S. § 41-4401, the Consultant hereby warrants to the City that the Consultant and each of its subcontractors ("Subcontractors") will comply with all Federal Immigration laws and regulations that relate to the immigration status of their employees and the requirement to use E-Verify set forth in A.R.S. §23-214(A) (hereinafter "Consultant Immigration Warranty").

A breach of the Consultant Immigration Warranty (Exhibit C) shall constitute a material breach of this Contract that is subject to penalties up to and including termination of the contract.

The City retains the legal right to inspect the papers of any Consultant or Subcontractor employee who works on this Contract to ensure that the Consultant or Subcontractor is complying with the Consultant Immigration Warranty. The Consultant agrees to assist the City in the conduct of any such inspections.

The City may, at its sole discretion, conduct random verifications of the employment records of the Consultant and any Subcontractors to ensure compliance with Consultants Immigration Warranty. The Consultant agrees to assist the City in performing any such random verifications.

The provisions of this Article must be included in any contract the Consultant enters into with any and all of its subcontractors who provide services under this Contract or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a Consultant or subcontractor. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

16. NOTICES:

All notices or demands required to be given pursuant to the terms of this Contract shall be given to the other party in writing, delivered by hand or registered or certified mail, at the addresses set forth below, or to such other address as the parties may substitute by written notice given in the manner prescribed in this paragraph.

IN WITNESS WHEREOF, the parties have hereunto subscribed their names to this ____ day of _____, 2014.

CITY OF CHANDLER

CONSULTANT

MAYOR Date

By: Doug Seebauer
Title: Vice President

ADDRESS FOR NOTICE
City of Chandler
P.O. Box 4008, Mail Stop 407

Chandler, AZ 85244-4008
Phone: 480-782-3307

ADDRESS FOR NOTICE
CH2M Hill Engineers, Inc.
1501 W. Fountainhead Pkwy., Ste. 401
Tempe, AZ 85282
Phone: 480-377-6239

APPROVE AS TO FORM

ATTEST: If Corporation

City Attorney by: CH

Thomas McLean
Secretary
VICE PRESIDENT

ATTEST:

City Clerk SEAL

EXHIBIT A SCOPE OF WORK

CONSULTANT shall provide the following services:

Task 1: Planning Framework

Assemble and review various source documents, data and information that will be pertinent to providing the proper planning framework for developing the Integrated Master Plan Update.

This task will be broken down into two sub-tasks to gather the background needed for this project.

Task 1.1: Current Planning Information

CONSULTANT will develop a list of planning projects and reports that are either recently completed or are ongoing, which are pertinent reference information for the development of this project. The CONSULTANT will complete this list by interviewing other City staff as necessary. The following are some examples of project reports and other relevant information that will be necessary for this project. CONSULTANT will reasonably rely upon the accuracy, timeliness, and completeness of the information.

- City of Chandler 2008 General Plan
- City Planning Department Projections for growth and development
- Price Corridor, Airpark Area Plan, and the Redevelopment Area Plan (South Arizona Avenue/Downtown) planning and development information
- Currently adopted Infrastructure Improvement Plan (IIP)
- Most recent integrated master plan
- Current information related to the Water Resource Portfolio including the most recent Assured Water Supply Decision and Order

CONSULTANT will review the reports and information collected in order to compile relevant information and assumptions needed for the development of the Integrated Master Plan. Data gaps will be identified and decisions will be made in consultation with the City staff, to determine the best method to circumvent the data gaps either by developing new assumptions or requesting key information to be provided by the City.

City will provide electronic copies of the documents identified above if at all possible.

Deliverables: Tabular summary of the information gathered above. Summary will be delivered electronically to the City in PDF format.

Task 1.2: Chandler General Plan Update 2015

The CONSULTANT will coordinate as appropriate with City Planners during the development of the General Plan Update 2015. The CONSULTANT will meet with City Planning and Economic Development staff to collect new information that is generated through this process regarding future growth and redevelopment trends. This includes all City forecast documents, industry studies and other related documents that provide information on potential future growth trends and nodes of activity defined through the General Plan Update process.

The CONSULTANT will participate and contribute to critical Plan Elements such as the Water Resources, Public Services and Facilities, Land Use, and Redevelopment in order to effectively coordinate input related to the Master Plan development. These include:

- Incorporate the Community vision for build out and infill into the Integrated Master Plan approaches as the General Plan progresses
- Integrate the community planning and development goals with Municipal Utilities Department water, wastewater, and reclaimed service projections

This task assumes 2 CONSULTANT will participate in meetings and coordinate with Planning and General Plan consultant.

Deliverables: Memorandum summarizing the information above. Memorandum will be delivered in PDF format to the City.

Task 2: Water Resources Portfolio

This task will summarize and document the current water resources portfolio of the City of Chandler. These supplies will be evaluated against the demand scenarios identified in Task 3 to develop a water balance assessment. Overall strategies must be consistent with the ADWR's goal of Safe Yield.

Available water resources include groundwater, surface water and reclaimed water. Use of these resources must be prioritized to achieve safe yield within the service area. Approach is broken down into the three subtasks below. Access will be provided to existing data that identifies current water supply portfolio information and data. One, two (2) hour, workshop to be held at the City, with two (2) CONSULTANT members in attendance.

Deliverables: Detailed summaries in tabular and graphical form will be provided for the following subtasks below within the context of a workshop presentation; Task Workshop Minutes

Task 2.1: Portfolio Summary

The CONSULTANT will review and document the current circumstances with respect to the regulatory framework for achieving an Assured Water Supply status. The previous integrated plan was completed while still under the provisions of the ADWR's Third Management Plan. The Fourth Management Plan has been delayed in its formulation; however it is currently under active development. The current City of Chandler Assured Water Supply will be discussed and documented pursuant to the most recent Assured Water Supply Decision and Order.

The current portfolio will be assessed with respect to the following elements:

- Surface water supplies – quantification, management and projected use
 - Salt River Project
 - Central Arizona Project
- Groundwater supplies
 - System capacity and management
 - Water quality objectives
- Effluent reuse
 - Municipal reuse for parks, golf courses, landscaping and recreational areas
 - Recharge, recovery, and long term storage credits
 - GRIC Settlement Agreement to provide reclaimed water in exchange for access to CAP water
 - Commitments to the Ocotillo Management Group service area
 - Industrial User agreements
 - Other agreements

Task 2.2: Long term supply/demand balance analysis

The CONSULTANT will evaluate the water supply available to on and off project areas based on the build out demand projections, and considering available surface water supplies both under normal supply conditions and in times of supply shortage. Potable water balances will be calculated through build-out. Non-potable water balances will be determined based on the most recent City information available. A comprehensive water balance of available supplies will be formulated including the following detail:

- On-Project Member and non-Member and off-project demand projected over time
- SRP, CAP, and groundwater supply availability over time, including evaluation of supplies available in case of shortage on both Salt/Verde River and Colorado River systems.
- Recharge operations and aquifer management (ASR, incidental, and reclaimed water)
- Formulate the System-Wide Supply/Demand Water Balance based on build out demand and supply projections.

City will provide available information related to surface water supply availability.

Task 2.3: Water Supply Reduction Contingency Plan

The City of Chandler maintains a Drought Management Plan (DMP) as a part of their overall water management strategy. The purpose of the DMP is to provide a set of guidelines for implementing an appropriate series of actions in response to the potential occurrence of a reduction in the normally available water supplies to the City. The current DMP will be reviewed and updated as needed. Since the original DMP was developed, the City has progressed significantly in the development of a more robust water resource portfolio, which has helped to further stabilize the availability of supply during a variety of demand conditions. In addition, the major local wholesale surface water providers have developed additional operational criteria related to regional shortage or drought related water supply impacts.

These considerations, along with others, will be incorporated as needed into an updated version.

Task 3: Water Treatment, Supply, and Distribution System

3.1 Define the existing and future water system infrastructure, projected demands, water quality, and hydraulic analysis.

3.1.1 Water supply and delivery systems

The existing status of the water system infrastructure will be described and summarized with written descriptions and displayed on mapped information. This will include: water treatment plants, water pumping and storage facilities, transmission and distribution systems, and groundwater production well sites.

The current water system operating plans will be discussed which will include:

- Operational approaches associated with the Pecos WTP and the San Tan Vista WTP.
- Groundwater supply management approaches.
- The system operation in response to seasonal demand patterns.
- Operating plan information will be included such as providing base load supply to the system from the water treatment plant sources during peak season operation complimented by groundwater pumping to meet local peaking requirements.
- Zone 1 and Zone 2 operations will be discussed in relation to the interconnected sources of SRP and CAP supply.

Deliverables: Maps and tabular summaries of the information gathered above. Summary will be delivered electronically to the City in PDF format.

3.1.2 Identify existing system demand characteristics

The purpose of this task is to provide a comprehensive update of the City's water demand database that will be used to update the Integrated Master Plan. Unit water demands will be based on land use type.

The City's land use and population databases will dictate the base information that is available for estimating water demands. Formats for presentation of water demand information will also be established in coordination with the City. Specific requirements for summation of water demands may include: 1) by water planning area and subareas; 2) by pressure zone and operational areas, 3) by SRP service area including on-Project Member, non-Member lands and off-Project areas, and; 4) by peak hour, peak day, average day, and maximum month.

The following are task elements to be completed by the CONSULTANT under this task:

UNIT WATER DEMANDS

Updated unit water demand factors will be developed for all Land use types using recent billing data. Factors for Peak, Average, and Minimum Day will be tabulated either from the system average for a given type, or using targeted areas identified by the City for a given usage type. Unit water demand factors will be evaluated in terms of housing units for residential uses and in square footage for non-residential units. Chandler unit water demand information will be developed consistent with other unit demand information from other municipalities in the metro areas which are based on real time water use data. Additional demand factors will be calculated for expected redevelopment areas as required to best estimate the system peak day demand.

PEAKING FACTORS

Peaking factors based on the differences between average and peak day for the system service area will also be tabulated.

SYSTEM LOSS AND UFW

Annual usage and billing data will be used to update the expected system Unaccounted for Water (UFW) percentages and will be used as a back check of the SCADA-based scaling factors for billing to actual system demand usage.

DEMAND FORECASTS

Develop the Peak, Average, and Maximum Month forecasts for build out conditions. Demand estimates provided by the recent 2014 Water Demand Update Study will be used to update the expected demands to the extent possible to avoid duplication of efforts. Demand estimates will be reflective of development forecasts developed in previous phases.

FIRE FLOW

Fire flow requirements will be developed under existing and future conditions. Fire flow demands will be calculated based on the major land use types of commercial, industrial, multi-family residential, and single family residential. Both existing and future fire flow demands will be developed to account for changes that may occur in growth and redevelopment areas.

City to provide the necessary data needed to coordinate with this task; One, two (2) hour, workshop to be held at the City with two (2) CONSULTANT members in attendance.

Deliverables: Task Workshop Presentation and Minutes

3.1.3 Develop baseline water system hydraulic model for current conditions

The City will provide a working version of their existing water system hydraulic model. The CONSULTANT will coordinate with City staff to confirm that the existing pipe and node system components of the water system model are up to date and includes the most recent as built information.

A water system modeling scenario will be developed to replicate existing peak demand season system operations.

Deliverable: Updated water system steady state hydraulic analysis based on an existing condition system operation.

3.2 Surge analysis

Hydraulic transients, also known as surge or water hammer, are high or low pressure waves that have been generated by velocity changes in full pipelines containing incompressible fluids such as water. Hydraulic transients are typically caused by pump startup and shutdown or valve opening and closure. They can also be caused by the operation of specialty valves such as check valves, air release valves, and pressure reducing valves. Sometimes these hydraulic transients are relatively benign causing only noise and slow pipe deterioration. However, sometimes they can be very serious causing pipe collapse, pipe rupture, joint movement, and structural damage. The magnitude of these pressure fluctuations is a function of the velocity change and system characteristics. Because these pressure fluctuations can often exceed the safe operating conditions of the piping and system appurtenances, hydraulic transient analysis should be performed as part of the system analysis and design.

Power failure is usually the most serious water hammer scenario because it represents an uncontrolled event of all the pumps shutting down instantaneously and without warning. Typical controlled flow changes with valve adjustments or staged pump startup and shutdown can usually be managed by operating procedures to stay within safe design criteria. Occasionally, these operating procedures should also be evaluated using hydraulic transient analysis to determine the appropriate valve timing or pump startup sequencing.

A surge analysis will be performed by first developing a steady-state model of the system. A base condition transient analysis will then be performed to determine the potential for excessive high or low pressures. If it is determined that pressure fluctuations exceed the safe operating condition, an analysis should be included to determine transient mitigation options.

The specific tasks for completing the surge analysis for specific portions of the system are:

- Gather appropriate information including pipe network and profile, pipe material, sizes and lengths, all pump station data and operation modes, air and control valve locations and operation, existing surge control devices, etc.
- Prepare node, pipe, and appurtenance (pump, valve, and reservoir) data for input into a model to perform a steady-state analysis as the initial conditions for the surge analysis.
- Prepare data such as acoustic wave speed and boundary conditions for input into the CH2M HILL SURGE program for transient analysis. SURGE uses the method of characteristics as outlined in the reference Fluid Transients by Benjamin Wylie and Victor Streeter.
- Perform a base surge analysis simulating power failure (or other appropriate operating scenarios) with no additional surge protection using the SURGE program.
- Determine necessary surge control and mitigation alternatives and test them through analysis. These may include:
 - Surge chambers (hydro pneumatic tank)
 - Surge relief valves
 - Air admission/air release valves
 - Surge arrestor valves
 - Surge tanks (open to atmosphere)
 - Bypass lines

- o Flywheels
- Develop a draft technical memorandum describing the system characteristics, boundary conditions, results, and conclusions including the advantages and disadvantages of proposed surge mitigation measures.
- Refine the analysis based on review comments on the draft technical memorandum.
- Prepare the final technical memorandum with recommendations plus tables and figures showing simulated system response. The final technical memorandum will include the following figures:
 - o Envelopes of maximum and minimum hydraulic grade lines and pressures for various alternatives
 - o Pressure versus time plots at selected locations in the system for various alternatives
 - o A schematic showing system layout with labeled pipes and nodes that define locations described in previous figures
- Develop an educational component based on the results of the Chandler system surge analyses. Incorporate this into a 2 to 3 hour training session with water and wastewater operations staff to communicate the consequences related to system surge events and their associated impacts.

Deliverable: Technical memorandum summarizing the results from the surge analysis. Conduct a training session with Chandler staff to explain and discuss these results from an operational perspective.

3.3 Water Quality

This task will address water quality aspects required by existing rules that will apply to the City's water system. This task will review existing, define the requirements of the regulations, create a compliance matrix, and suggest improvements where there are compliance issues or potential issues.

Water quality data and reports will be requested for the distribution system water quality characteristics at the treatment facilities, remote reservoir/booster station sites, and points of compliance. The City will also provide any information related to water quality compliance reporting for previous years of system operation. CONSULTANT will review this information and then meet with the City to discuss the operating scenarios and treatment strategies to maintain regulatory compliance. CONSULTANT will provide recommendations for additional water quality sampling to capture any data gap.

Based on the information provided by the City, CONSULTANT will provide an overview of the City's compliance with existing regulations. These regulations include the following:

- o National Primary Drinking Water Standards
- o Surface Water Treatment Rule (SWTR)/Long Term Enhanced SWTR
- o Stage 2 Disinfectants and Disinfection Byproduct Rule (D/DBPR)
- o Total Coliform Rule
- o Lead and Copper Rule
- o Groundwater Treatment Rule
- o Radionuclides Rule

3.4 Future water system infrastructure

As a culmination of the previous subtasks within this section, the CONSULTANT will develop future growth and demand scenarios with spatial distributions for demand assignments. These demands will be distributed accordingly into the data base for use with the hydraulic system model.

The CONSULTANT will develop the necessary water system hydraulic models to analyze impacts to the existing water system related to growth and development impacts.

The CONSULTANT will develop the following hydraulic modeling scenarios for:

- Steady state peak hour simulation of the 2014 system
- Steady state peak hour simulation of the system under build out conditions
- Extended period peak condition simulation (24 or 48-hour simulation) of the system under build out conditions

The CONSULTANT will formulate the projected water system capital improvement program recommendations associated with the water system.

Deliverables: The CONSULTANT will provide a technical memorandum summarizing the results and recommendations for future capital improvement programs. This memorandum along with tabular summaries will be provided in PDF format.

Task 4: Wastewater Treatment and Collection System

4.1. Define Chandler's existing collection and treatment systems

4.1.1 Current wastewater system operation and permitting criteria

The existing status of the wastewater system infrastructure will be described and summarized with written descriptions and displayed on mapped information. This will include: wastewater treatment plants, wastewater lift stations and diversion facilities, collection systems, and groundwater recharge facilities for effluent storage.

The intentional interconnection of all of the City's wastewater treatment facilities has provided the City with unique capabilities for managing system wastewater collection flows, achieving treatment objectives, and meeting long-term reclaimed water delivery obligations while at the same time maximizing operational efficiency and regulatory compliance. This task will discuss these operational approaches and the existing permitting framework. Specific items to be discussed as part of this task include:

- City of Chandler's 100% effluent reuse program which includes zero effluent disposal.
- Current Industrial Pre-treatment Program.

4.1.2 Update and develop wastewater system flow model to replicate existing system operations

Hydraulic Model Setup Review

The City will provide a working version of their existing wastewater system hydraulic model in EPA SWMM5. Support will be provided by City staff to ensure the existing wastewater collection system components are up to date and include the most recent as built information. The model will contain all pipes 10-inches and greater, as well as smaller diameter pipes needed for connectivity. The model will be reviewed for continuity before being utilized for the master planning effort. A list of network discrepancies identified will be provided to the City for review and verification. The City will provide the data necessary for resolution to the identified problems. It is anticipated that problems identified will consist primarily of inaccurate or missing slopes, pipe diameters, pipe lengths, rim elevations, or invert elevations.

Base Sanitary Flow Development

Base sanitary flow will be generated by utilizing the water distribution system demands and applying a return to sewer ratio. The water distribution system demands will be developed on a per unit basis for residential land-use, and a square footage basis for other land uses to account for vertical development within the city. Industry standard return to sewer ratios will be utilized to estimate the portion of water returning to the sewer for each land use type. The selected return to sewer ratios will be validated against known data during the model verification process. Base sanitary flow will be assigned to the appropriate manhole using GIS or model tools. Base sanitary flow return to sewer ratios by land use will be identified and summarized during this task.

Wet Weather Flow Development

Wet weather flow development methodology will be decided upon after review of WWTP influent flow meter data. Storm events will be selected and U.S. EPA Sanitary Sewer Overflow Analysis and Planning (SSOAP) toolbox will be utilized to aid in the determination of dry weather flow, diurnal pattern, groundwater infiltration and domestic flow exfiltration. Depending on the extent of stormwater inflow/infiltration during storm events, a methodology for replicating inflow/infiltration will be selected.

Hydraulic Model Verification

Following completion of hydraulic model setup review the model will be verified against available data. No flow monitoring activities are planned as part of this scope. Available data will be gathered from the following sources and the best available data will be utilized in the validation process.

Available data may include:

- City's SCADA system data
- Lift Station flow monitors or operation logs
- WWTP influent flow meters
- Data from past sewer system monitoring programs

Dry Weather Flow Verification

Dry weather periods will be identified and the best available data will be used in comparing model results to real time data. Adjustments may be made to the return to sewer ratios to produce results consistent with observed dry weather flow.

Wet Weather Flow Verification

Two storm events will be selected and utilized for model verification pending available data.

4.1.3 Existing and Future Wastewater System Infrastructure Analysis

Existing System Analysis

A wastewater system modeling scenario will be developed to replicate existing peak season system operations. The model will be used to analyze how the sewer system performs during two hydrologic events with defined return periods (for example, 10-year recurrence interval storms). For the analysis, synthetic rainfall hyetographs will be developed for the selected storms. The duration of the storms will be determined to be consistent with the drainage area characteristics or regulatory agency standards.

The model will be used to simulate the storms to predict the resulting sewer system wet weather response. Peak flow rates at critical points within the system and hydraulic restrictions will be identified from model simulations. To analyze the capacity of the sewer system, the City's wastewater system performance and design criteria will be utilized.

Future System Analysis

A wastewater system modeling scenario will be developed to analyze the system with projected future flows. The future projected water system demand developed for the water distribution portion of this study, as described in section 3.1.2, will be utilized and the verified return to sewer ratios will be applied. The future demand will be loaded into the sewer system model consistent with the loading of the water distribution model. An estimate of probable inflow/infiltration will be added in areas where new pipeline construction is expected.

The storm events selected for the existing system model analysis will be applied to the future system scenario and the resulting sewer system wet weather response will be analyzed.

4.2 Recommendations

A list of the identified deficiencies will be provided for both the existing and future model runs. A workshop will be scheduled with the City to discuss deficiency areas and identify up to three solution scenarios for further evaluation. The three solution scenarios will be modeled. Modeling methodology, model calibration, system deficiencies, solution evaluation and recommended improvements will be provided in the report developed as part of Task 7.2.

Deliverable: The deliverable for Task 4 will include model analysis results. Electronic copies of the models used for analysis will be included in SWMM5 format.

Task 5: Reclaimed Water System

5.1 Existing system characterization

5.1.1 Existing system overview/operations

The City's existing Reclaimed Water Service area will be delineated in both written and graphic descriptions. The existing reclaimed water infrastructure system will be defined. The City operates three wastewater treatment facilities: the Ocotillo Water Reclamation Facility (OWRF), the Airport Water Reclamation Facility (AWRF) and the Lone Butte Wastewater Treatment Plant (LBWWTP). These facilities generate effluent which supports the needs of the City's reclaimed water supply systems.

5.1.2 Demands and customer usage characteristics

Previous projections of future reclaimed water demand and supply will be reviewed and updated. This task will update current and projected reclaimed demands. A summary of existing agreements with the GRIC, OMG, industrial users, and, both the small and large reclaimed users will be included. Characteristics for hourly, monthly and annual variations of demand on the system will be reviewed.

Deliverables: Tabular and written summary of the information gathered above will be provided. Summary will be delivered electronically to the City in PDF format.

5.2 Future Reclaimed Water System Infrastructure

This task will include an update of current reclaimed system growth and development scenarios. The CONSULTANT will reference the Reclaimed Water System Demand and Infrastructure Assessment Report completed at the end of 2013 as the basis and starting point for work on this task. The CONSULTANT will utilize the previously calibrated Chandler EPANET model. The City will provide a current version of the model that reflects the most recent infrastructure improvements to the system and any operational adjustments (closed valves, new pipeline connections, storage, and etc.).

The CONSULTANT will develop and update the following hydraulic modeling scenarios for:

- Steady state peak hour simulation of the 2014 system
- Steady state peak hour simulation of the system under build out conditions
- Extended period peak condition simulation (24 or 48-hour simulation) of the system under build out conditions

The CONSULTANT shall evaluate each of the above models outputs and recommend changes to improve the reclaimed water system's performance. The CONSULTANT shall perform a system assessment and develop a CIP to outline the budget and timing of the recommended infrastructure.

5.3 Reclaimed Water Quality - TDS considerations

This task will provide a summary and characterization of existing and future potential for increased salinity in the City of Chandler service area associated with community water supply and wastewater treatment. The data and results from the recently completed Reclaimed Water TDS Assessment will incorporate into this section of the Integrated Master Plan Update and further approaches will be evaluated.

Based on similar efforts within the Southwest and Arizona, all approaches to the management of reclaimed water salinity along with reduction strategies are not trivial endeavors. These invariably involve significant policy deliberations within the community and discussions regarding equity between affected stakeholders. It is essential, therefore, that a reasonable level of continuous analysis be conducted regarding the TDS.

This task will develop a decision matrix of activities to be considered by the City in order to provide a more complete understanding of salinity changes within the water system and, and also to provide additional information that can be used to develop a comprehensive salinity management strategy. These activities will include:

- Confirming the suitability of reclaimed water quality for available customer uses
- Evaluation of the next steps for technical data and analysis efforts that will support the City's objectives for future salinity management
- The development of public information summaries to describe the City's current TDS management approaches
- Workshops associated with the above items

Deliverables: Memorandum summarizing the information above. Memorandum will be delivered in PDF format to the City.

Task 6: Asset Management

This task will focus on the linear assets of the water distribution system using a risk-based approach to identify portions of the distribution system that pose a high risk of failure. The approach will consider the consequences associated with asset failure and the likelihood of asset failure. The City will identify a cross-section of staff that will comprise an asset management team. These staff members will participate in task workshops and provide relevant data and information to complete task deliverables.

6.1 Develop risk matrices

Through knowledge of industry practices and the City's system, CH2M HILL will develop a recommended list of service level (LOS) categories for consideration by the asset management team. It is anticipated that no more than six categories will be established for the water distribution system, based on the CONSULTANT's experience in conducting asset management programs for numerous other utilities. A one-day facilitated workshop will be held to modify or confirm the categories, develop relative weightings, and to create a Consequence of Failure (CoF) matrix based on the established LOS categories. The matrix will include the criteria and scoring system necessary to quantify the CoF of assets and calculate the relative risk of failure. Similarly, CH2M HILL will develop a recommended criteria and scoring system for quantifying the likelihood of failure (LoF) of water distribution assets. LOF criteria will include attributes that relate to asset condition as well as asset performance. A half-day facilitated workshop will be held with the asset management team to review and refine the recommended LoF criteria and

scoring system, including allocating weightings to each category. The completed CoF and LoF matrices and scoring systems will be used to calculate the relative risk of asset failure in Task 6.2.

Deliverable: CoF and LoF matrices and scoring systems.

6.2 Risk analysis

To facilitate the calculation of risk, and allow for a graphical display of high consequence, high likelihood and high risk assets, the CONSULTANT will use Innovyze's CapPlan® software application. The analysis will use asset attribute data from the City's GIS, as well as other GIS data such as roads and traffic loading, locations of critical customers, and soil characteristics to score each pipe segment. Data from the City's hydraulic model will be incorporated to determine the impact on flows and pressure due to asset failure. The output will identify the portions of the distribution system posing the greatest risk of failure.

A half-day facilitated workshop will be held with the asset management team to review the results of the risk analysis and choose an acceptable level of risk, above which risk mitigation options should be identified, and provide the information needed to identify risk mitigation options through rehabilitation and replacement projects, as well as to consider non-capital mitigation alternatives. The results will also offer the guidance needed to select high consequence segments of the distribution system for condition assessment and monitoring.

Deliverables: CoF, LoF and risk scores of pipe segments; technical memorandum recommending both condition assessments/monitoring, along with options for mitigating risks for assets having a higher than acceptable level of risk.

Task 7: Integrated Water, Wastewater, and Reclaimed Water Master Plan Capital Improvement Program Development and Recommendations

Develop a preferred alternative based on the work of previous tasks and create a capital improvement plan including an implementation and phasing schedule culminating in a final Integrated Master Plan Update.

Task 7.1 CIP/Phasing Plan

Based on results of hydraulic modeling scenarios and other analyses conducted in previous tasks, the CONSULTANT will develop improvement projects (capital and non-capital) that meet specified criteria developed in the modeling tasks. Due to the passage of Senate Bill 1525, the improvements will be categorized as follows:

- Improvements to serve existing customers
- Improvements to serve growth

Deliverables: Develop implementation/phasing schedule (Capital Improvement Plan) and individual project summary sheets (one per capital project).

Task 7.2: Integrated Master Plan Document

The deliverables from this task and previous tasks will be combined into a draft Integrated Master Plan Update report. Comments from the City will be incorporated into a final report.

The implementation/phasing schedule will be developed in 5 year increments. One, two (2) hour, workshop to be held at the City with three (3) CONSULTANT members in attendance.

Deliverables: Draft Integrated Master Plan Update report (1 PDF), Final WMP Update report (6 hard copies and 1 PDF), and a stand-alone Executive Summary (1 PDF and 6 hard copies)

Task 8: Project Management

The CONSULTANT will meet or exceed the expectations of the City through the implementation of the project execution plan and maintaining a high level of proactive communication throughout the entire project.

This task is broken down in the following sub-tasks.

Task 8.1: Project Execution Plan/Project Kickoff

Prepare a Project Execution Plan (PEP) for the project and distribute to the City and CONSULTANT staff. The work plan will include the project purpose and objectives, scope of work, project delivery schedule, deliverables, budget, organizational chart, communication plan, change management plan and document management plan. In addition, the plan will include a Quality Management Plan and a project Health and Safety Plan.

Conduct initial project kick-off meeting/chartering session with project participants to review the project goals, objectives, scope of work, project schedule, and roles and responsibilities.

The execution of the Quality Management Plan will be conducted under Task 8.4.

Deliverables: Project Execution Plan in PDF format and meeting minutes from the kickoff meeting delivered via email.

Task 8.2: Progress Reporting

Prepare and distribute monthly progress reports to the City throughout the course of the project. The progress reports will summarize the work has been completed during the preceding month and work that will be completed during the upcoming month. These reports will be delivered as part of the monthly progress payment request.

Deliverables: Monthly invoice and progress report.

Task 8.3: Project Coordination and Progress Meetings

CONSULTANT will conduct project progress meetings with the City to discuss issues/elements of the project. Meeting agendas will be prepared and distributed two (2) days prior to the meeting and meeting minutes will be prepared and distributed by CH2M HILL within 3 business days following the Project Coordination and Progress Meeting. It is anticipated that there will be twelve (12) project Coordination and Progress Meetings.

Task 8.4: Quality Assurance/Quality Control

While the specifics will be defined in the QMP, the overall approach will include the following features:

- All deliverables will be included in the QMP and will be reviewed by a senior member of the team that was not involved with the preparation of the deliverable.
- Internal comments/reviews will be tracked and will include a follow up step to confirm that all of the comments have been properly addressed.
- External comments will also be tracked and include a follow up step to allow the City to understand how the comment was addressed.

Deliverables: External comment tracking spreadsheets for major deliverables.

**EXHIBIT B
FEE SCHEDULE**

Category	Principal/Principal Technologist	Principal Project Manager	Principal Project Manager	Project Engineer	Project Engineer	Project Engineer	Principal/Principal Technologist	Principal Project Manager	Estimator	Principal/Principal Technologist	Associate Engineer	Office/Pubs/Accounting	Office/Pubs/Accounting	Price
Rate	\$205	\$189	\$189	\$158	\$158	\$158	\$205	\$189	\$132	\$205	\$132	\$84	\$84	
1 Planning Framework	144	144	0	12	16	12	0					28	0	\$85,408
1.1 Current planning info	24	24		12	16	12						12		
1.2 General plan updates	120	120										16		
2 Water Resources Portfolio	112	144	0	0	0	0	0					24	0	\$82,192
2.1 Portfolio	24	24												
2.2 Supply/demand balance	8	40										8		
2.3 Water Supply mgmt plan update	80	80										16		
3 Water System	80	220	0	0	408	160	0	128				40	0	\$174,012
3.1 Existing water system														
3.1.1 Water system overview/operating plans	8	16			24									
3.1.2 System demand	16	84			80									
3.1.3 Existing water model	16	40			136									
3.2 Surge analysis								128						
3.3 Water quality						180								
3.4 Future water system	40	100			160							40		
4 Wastewater System	96	16	199	740	0	0	0					80	0	\$183,388
4.1 Existing WW system														
4.1.1 WW system operation/permitting	16	2	16	40								16		
4.1.2 Wastewater model update/loading/verification	16	2	96	400								24		
4.1.3 Existing and future analysis	16	4	48	200										
4.2 Recommendations	48	8	38	100								40		
5 Reclaimed System	96	120	0	0	176	120	40	0	0	0	0	24	0	\$99,344
5.1 Existing reclaimed system														
5.1.1 Reclaimed system overview/operations	8	8			8									
5.1.2 Reclaimed system demand	16	58			88									
5.2 Future reclaimed system	24	56			80									
5.3 Quality considerations	48					120	40					24		
5.4 Allowance	48					148	72					24		
6 Asset Management	40	144	0	0	0	0	0	0	0	100	200	24	0	\$84,332
6.1 Develop risk matrices	16	24								40				
6.2 Risk analysis	24	120								60	200	24		
7 Report	96	104	32	86	86	40	16		60			88	0	\$87,992
7.1 CIP/Phasing	16	24	8	16	16	16			60			24		
7.2 Master Plan	80	80	24	40	40	24	16					64		
8 PM	172	56	32	16	28	28	0					4	72	\$89,652
8.1 Kickoff/PXP	12	8	16		12	4						4		
8.2 Progress reporting	72												72	
8.3 Coordination/meetings	48	48	16	16	16	24								
8.4 QA/QC	40													

Expenses \$25,200

Fee \$841,520

Owner's Allowance \$50,000

Total Fee \$891,520

EXHIBIT C

**Consultant Immigration Warranty
To Be Completed by Consultant Prior to Execution of Contract**

A.R.S. § 41-4401 requires as a condition of your contract verification of compliance by the Consultant and subcontractors with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of its employees.

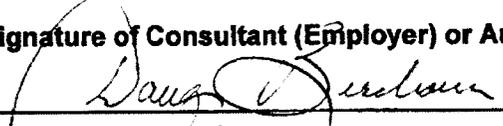
By completing and signing this form the Consultant shall attest that it and all subcontractors performing work under the cited contract meet all conditions contained herein.

Project Number/Division: WW1420.101		
Company Name (as listed in the contract):		
Street Name and Number:		
City:	State:	Zip Code:

I hereby attest that:

1. The Consultant complies with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of those employees performing work under this contract;
2. All subcontractors performing work under this contract comply with the Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214 related to the immigration status of their employees; and
3. The Consultant has identified all Consultant and subcontractor employees who perform work under the contract and has verified compliance with Federal Immigration and Nationality Act (FINA), all other Federal immigration laws and regulations, and A.R.S. § 23-214.

Signature of Consultant (Employer) or Authorized Designee:



Printed Name: Doug Berschauer

Title: Vice President

Date (month/day/year): 11/24/14