



**PURCHASING ITEM
FOR
COUNCIL AGENDA
CP16-015**

1. Agenda Item Number:

22

2. Council Meeting Date:
August 13, 2015

TO: MAYOR & COUNCIL

3. Date Prepared: July 29, 2015

THROUGH: CITY MANAGER

4. Requesting Department: Municipal Utilities

5. SUBJECT: Project Agreement with CH2M HILL Engineers, Inc., for the Wastewater Local Limits and Surcharge Rates Study

6. RECOMMENDATION: Staff recommends City Council award a Project Agreement to CH2M HILL Engineers, Inc., for the Wastewater Local Limits and Surcharge Rates Study, pursuant to Annual Water and Wastewater Services Contract No. EN1519.101, Project No. WW1515.101, in an amount not to exceed \$169,789.

7. BACKGROUND/DISCUSSION: The U.S. Code of Federal Regulations requires the City to periodically review and update its wastewater pretreatment program. The City's Industrial Pretreatment Program protects the environment by reducing pollutants discharged by industries. Industrial wastewater discharge limits, or "local limits", are determined based on the City's current wastewater treatment capacity and Federal and State discharge regulations. The City's Industrial Pretreatment Program administrative costs are recovered through surcharge rates paid by these industries.

This project scope of work consists of three phases: Phase 1 is the review and evaluation of the City's current local limits, Phase 2 is the preparation of updated local limits, and Phase 3 is the public review of the revised local limits, update of surcharge rates and billing practices. Work in each phase will proceed at the City's request.

8. EVALUATION PROCESS: This project is being performed under the Annual Water and Wastewater Services Contract No. EN1519.101, to CH2M HILL Engineers, Inc. The costs proposed for this project have been evaluated by Staff and are determined to be reasonable. The contract completion time is 548 calendar days following Notice to Proceed.

9. FINANCIAL IMPLICATIONS:

Cost: \$169,789
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>
615.3950.5219.0.0	Wastewater Operating	Other Professional Services	No	\$ 31,000
615.3950.5316.0.0	Wastewater Operating	Machinery/Equipment	No	\$ 10,000
615.3950.5350.0.0	Wastewater Operating	Lab Supplies	No	\$ 20,000
615.3950.5911.0.0	Wastewater Operating	Contingency Reserves	No	\$108,789
Total:				\$169,789

10. PROPOSED MOTION: Move City Council award a Project Agreement to CH2M HILL Engineers, Inc., for the Wastewater Local Limits and Surcharge Rates Study, pursuant to Annual Water and Wastewater Services Contract No. EN1519.101, Project No. WW1515.101, in an amount not to exceed \$169,789.

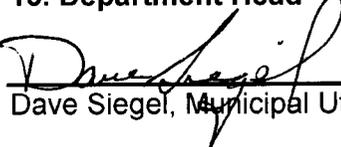
ATTACHMENTS: Agreement

APPROVALS

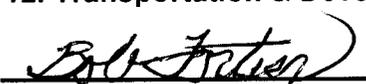
11. Requesting Department


John Knudson, Utilities Engineering Manager

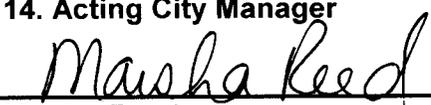
13. Department Head


Dave Siegel, Municipal Utilities Director

12. Transportation & Development


Bob Fortier, Capital Projects Manager

14. Acting City Manager


Marsha Reed

**PROJECT AGREEMENT
PURSUANT TO ANNUAL CONTRACT NO. EN1519.101**

PROJECT AGREEMENT NO: WW1515.101

This AGREEMENT is made this _____ day of _____, 2015, by and between the City of Chandler, a municipal corporation (hereinafter referred to as "CITY") and CH2M Hill Engineers, Inc., a Delaware corporation, licensed in the State of Arizona (hereinafter referred to as "Annual Consultant") and is a project agreement entered into pursuant to Annual Contract No. EN1519.101.

CITY and CH2M Hill Engineers, Inc., in consideration of the mutual covenants herein set forth, agree as follows:

ARTICLE 1 - DESCRIPTION OF WORK:

This project is Wastewater Local Limits and Surcharge Rates Study, Project Number WW1515.101. The scope of work consists of evaluating the basis for the current local limits, and if required provide updated local limits and associated wastewater surcharges, all as more particularly set forth in Exhibit A attached hereto and incorporated herein by reference.

The Annual Consultant shall not accept any change of scope, or change in contract provisions, unless issued in writing, as a contract amendment and signed by the Contract Administrator.

ARTICLE 2 - CONTRACT PRICE:

CITY shall pay Annual Consultant for completion of the Work in accordance with the Contract Documents a fee not to exceed One Hundred Sixty Nine Thousand Seven Hundred Eighty Nine Dollars (\$169,789) determined and payable as set forth in Annual Contract EN1519.101 and Exhibit B attached hereto and made a part hereof by reference.

ARTICLE 3 - CONTRACT TIME:

The contract time is Five Hundred Forty Eight calendar days and Annual Consultant agrees to complete all work within Five Hundred Forty Eight (548) calendar days of the date CITY issues a Notice to Proceed.

ARTICLE 4 – GENERAL:

This Project Agreement is entered into pursuant to Annual Contract No. EN1519.101 and the terms and conditions contained therein are incorporated herein by reference as if set forth in full.

IN WITNESS WHEREOF, the parties hereto have executed this Project Agreement on the day and year first written above.

This Project Agreement will be effective on this _____ day of _____, 2015.

CITY OF CHANDLER

FOR THE ANNUAL:

MAYOR DATE:

By: Thomas McLean
Title: VICE PRESIDENT

ADDRESS FOR NOTICE
City of Chandler
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008
480-782-3307

ADDRESS FOR NOTICE
Mr. Tom McLean
CH2M Hill Engineers, Inc.
1501 W. Fountainhead Pkwy., Ste. 401
Tempe, AZ 852-1868

APPROVED AS TO FORM:

Phone: 480-377-6239

City Attorney By: CTH

ATTEST:

City Clerk

EXHIBIT A SCOPE OF WORK

Project Description

The scope of services is divided into three sequential phases of work.

- Phase 1: Review and Evaluate the Basis for Current Local Limits
- Phase 2: Pending Results of Phase 1, Prepare Updated Local Limits
- Phase 3: Pending Results of Phase 2, Update Surcharge Rates and Billing Practices

Work in each phase will proceed at the CITY's request.

Phase 1: Review and Evaluate the Basis for Current Local Limits

ANNUAL CONSULTANT shall review the basis for the CITY's current local limits and compare this basis to current regulatory criteria and system conditions. The goal of this effort will be to assure that these limits are relevant and meet both legal and environmental requirements. Additionally, these limits will be compared to neighboring communities to assure that they are consistent with regional practices and policy. Based on this review the ANNUAL CONSULTANT shall prepare a technical document which outlines the results demonstrating the approach taken and the results. Phase 1 will be based on sound accepted methodology that is used to demonstrate that current limits are adequate and appropriate or else clearly demonstrate that a re-evaluation and development of Technically Based Local Limits is required. The scope of Phase 1 shall be technically designed to provide information that is normally collected during a complete local limits development and will provide cost savings if it becomes necessary to implement Phase 2.

Task 1.1 Charter Meeting

Upon initiation of the project, ANNUAL CONSULTANT shall have a kickoff meeting with the CITY to discuss the work plan prepared by ANNUAL CONSULTANT, project schedule, communications protocols and similar items. This meeting will be followed by a tour of the treatment plants to familiarize the consultant with the onsite conditions of the plant along with time to get acquainted with the onsite work task force. This onsite tour will provide insight into the significant upgrades that have been achieved since 2008, especially at the airport plant.

Task 1.2 Data Collection

ANNUAL CONSULTANT will prepare a data and information request to the CITY. The CITY will then collect and provide information needed to conduct the evaluation. While Task 1.2 is predicated on assistance from the CITY, ANNUAL CONSULTANT will conduct a data search of our records for information that is already on file. Information needed (if available) includes but is not limited to:

- Aquifer protection permits applicable at the time of last TBLL
- Current aquifer protection permits
- All Priority Pollutant Scans which have been performed in the last 3 years on the influent and/or effluent
- A list and description of any changes in biosolids handling and disposal methods
- A list of Treatment plant improvements, modification(s) or process deletions since last TBLL
- Current monitoring data for pollutants covered by TBLL
- A list of any Inter-jurisdictional Agreements
- A list of industrial users at the time of the last TBLL development. Changes in industrial contribution in terms of loading, industrial base and industrial processes

- A list of current industrial users and any major process changes or expansions since the last TBLL development.
- Whole Effluent Toxicity Test results for the last 5 years if this tests has been conducted.
- Treatment Plant monitoring data for flow, BOD, TSS, ammonia and phosphorus.
- History of effluent compliance since last TBLL development.
- Other information as needs become evident during the conductance of the evaluation.

Task 1.3 Data-Regulatory Review and Evaluation

A full review of the applicable regulatory requirements shall be conducted along with a comparison to current data. The comparison shall follow a systematic approach that has been shown to be successful in other treatment systems and will step by step examine the fundamental factors involved in local limits development.

Task 1.4 Prepare a Technical Document Based On Results of Task 1.3

The results of Task 1.3 shall be collected and provided in a technical document which clearly demonstrates that the current TBLL are adequate to meet all environmental and regulatory requirements. Alternatively, if the limits do not meet these requirements the rationale that this conclusion is based on will be clearly documented. The technical document shall be of sufficient quality to be certified by the CITY for submission to regulatory agencies if such a submission is required.

Phase 2: Prepare Updated Local Limits

Based on results of Phase 1 and identified required changes new TBLL shall be provided as Phase 2. These changes will be based on technically sound and accepted methodology and rationale and shall support CITY programs for future years.

Task 2.1 Identification and Selection of Pollutants for Further Testing

Based on the evaluation in Phase 1 pollutants that were identified as needing revision or new pollutants that need to have a limit developed will be evaluated. This activity is intended to be inclusive of EPA mandated pollutants which must be considered (heavy metals) and cyanide. Based on monitoring records and priority pollutant scans it shall also include:

- Review biosolids testing records for pollutants concentrated in the biosolids for pollutants exceeding one half the biosolids limit
- Review influent testing for pollutants reaching 1/500th biosolids disposal regulatory criteria.
- Review Priority Pollutant Scan for Pollutants at the WWTP with reasonable potential to exceed technically based local limit (TBLL) criteria.
- Review other criteria and data sources as they become available.

Task 2.2 Collection of Additional Data

For pollutants identified, a judicious selection of additional data from USGS, Engineering Data and local Industrial conditions, shall be prepared as a second data request to the CITY. This information will potentially include:

- Receiving water flow and conditions
- Plant design criteria-specific unit process size and capacity
- Review of prior records for possible instances of pass through
- Worker health and safety issues/flammability and toxicity
- Conventional Pollutant Loading Record
- Total Dissolved Solids history and current records
- Other Applicable Data Potentially Needed for TBLL Construction.

Task 2.3 Site Specific Concurrent Sampling and Testing of System

For pollutants identified in Task 2.1, ANNUAL CONSULTANT shall prepare a sampling plan and coordinate with the CITY to conduct testing on the system. The results from this testing shall be used to establish site specific conditions, determine pollutant removal factors and conduct limited mass balance calculations. For each pollutant of concern the proposed tests regimen is shown in Table 1 which will need to be sampled and analyzed by the CITY over 7 continuous days to meet EPA guidance.

Table 1-Test Regimen ¹		
Frequency	Test Site	
7	Influent	
7	Effluent	
2	Domestic Contribution Site	
2	Concurrent Biosolids Monitoring	
1	Receiving Water	
3	After other key treatment plant processes that route solids to the sludge such as Primary Clarification needed to calculate plant inhibition levels.	
Proposed	Test	Rounds
.....		1

Note 1: EPA guidance suggests that for new limits 14 consecutive days of concurrent influent/effluent testing for treatment plants above 5 MGD and 7-day consecutive days for treatment plants that are 5 MGD or less. This is needed to establish site-specific conditions, determine plant removal factors, and conduct limited mass balance calculations. ANNUAL CONSULTANT will propose to the Arizona DEQ a single campaign limited to 7 days of concurrent influent/effluent sampling (in addition to collection system and sludge sampling) based the premise that this is an update of existing limits.

Task 2.4 Data Compiling and Analysis

ANNUAL CONSULTANT shall review the test data and QA/QC for anomalies and after data acceptant will set up data management to facilitate calculations. Site specific removal factors shall result from this effort along with the calculation of key factor needed for final limit selection.

Task 2.5 Apply Data Calculations, Best Professional Judgment, Select Limits

ANNUAL CONSULTANT shall perform calculations using compiled data and apply best professional judgment to establish proposed local limits. Based on completion of these limits the factors that were used in their calculations along with any alternate options shall be examined and a final limit will be selected.

Task 2.6 Complete Written Rationale

Provide a well written rationale in accordance with the 2004 EPA Guidance Manual and other accepted sources to expedite regulatory acceptance and provide a sound foundation for client enactment and enforcement. A well written rationale facilitates future evaluations as outlined in Phase 2 and provides a sound legal foundation for conducting IPP.

Task 2.7 CITY Review

Before submittal of proposed limits to Arizona DEQ, the CITY will have an opportunity to review and discuss limits and partner with ANNUAL CONSULTANT to discuss opportunities to make final adjustment using Best Professional Judgment.

Task 2.8 Initial Submittal for Review to Arizona DEQ for Approval

The CITY will submit the draft local limits and justification rationales to Arizona DEQ for their review and comment or approval.

Task 2.9 Consideration of Permit Authority Comments

ANNUAL CONSULTANT shall assist in the review of comments received from DEQ in cooperation with the CITY and make final adjustments to meet requested changes. This scope of work anticipates that new limits will be published by the CITY for public comment and then will re-submit to Arizona DEQ for final approval. Pricing assumes two cycles of review comments from DEQ.

Task 2.10 Presentations and Meetings

In order to provide Phase 2 services and work products, ANNUAL CONSULTANT shall prepare for and participate in the following meetings:

- Kickoff Meeting
- Industry Meeting #1 (to present the revised local limits to the CITY and to the industries)

Additional outreach meetings have been included in Phase 3, following the completion of the Surcharge Rates and Billing Practices Report.

Phase 3: Update Surcharge Rates and Billing Practices

If substantial changes are made to the CITY's local limits in Phase 2, it would be prudent to revisit the surcharge rates. Following Phase 2, ANNUAL CONSULTANT shall discuss with the CITY's project team potential modifications to the industrial wastes that are monitored and levied surcharges, alternative cost allocation methods for determining the portion of the system costs allocated to each strength parameter, and the merits of each.

Task 3.1 – Phase 3 Initiation and Data Collection

ANNUAL CONSULTANT shall provide the CITY with a data request, including but not limited to operational, financial, and customer billing data for the wastewater system as well as broader financial planning and policy information. ANNUAL CONSULTANT shall hold a project kick-off meeting with the CITY's project team and appropriate technical staff in order to refine the work plan and schedule, establish lines of communication for the project, identify and agree to responsibilities and participation levels of CITY staff, and discuss the specific issues associated with the study.

Task 3.2 - Determine Revenue Requirements

ANNUAL CONSULTANT shall develop projected cash flows and expenditures and will review and analyze the CITY's revenue requirements for capital and operating costs identified for evaluation during project initiation, including provisions for:

- Operation and maintenance costs,
- Administrative costs,
- Renewal and replacement costs,
- Equity-funded capital outlays,
- Debt-funded capital outlays, including existing outstanding debt service and projected debt for bonds and loans anticipated to fund future CIP projects, and
- Any other financial commitments identified during the project initiation workshops.

Task 3.3-Perform Cost of Service Analysis

If wastewater surcharges are modified or expanded, ANNUAL CONSULTANT shall use industry-proven methods published by the Water Environment Federation, together with experience with similar studies, to allocate costs to service functions and customer groups. Revenue requirements will be allocated to utility unit processes (collection, transmission, primarily clarifiers, effluent disposal, etc.), then to utility functions (e.g., flow, wastewater parameters such as biochemical oxygen demand, total suspended solids, ammonia etc. and customer service and billing, etc.) and finally to customer classes based on their service characteristics (e.g., wastewater flows, strength characteristics, and number of accounts) and cost causation.

Task 3.4 - Calculate Proposed Surcharge Rates

ANNUAL CONSULTANT shall calculate new water volumetric rates and high strength wastewater surcharge rates (BOD, TSS and NH3) to be collected from all applicable industrial users (under existing local limits) and shall estimate the impacts of these proposed rates on the CITY's current high strength customers' bills. The CITY shall provide the recently completed cost of service rate study for water and wastewater utilities.

Task 3.5 – Review Billing Practices

ANNUAL CONSULTANT understands that the CITY currently recovers its wastewater monitoring and pretreatment program costs through volumetric water charges (\$0.183 per 1,000 gallons) and high-strength wastewater surcharges. ANNUAL CONSULTANT also understand that the CITY's historical billing practices need to be reviewed to ensure that all applicable commercial and industrial customers are billed appropriately. The CITY desires this rate study to verify that these charges are equitably applied across all applicable customers and that revenues from these charges are sufficient (but not excessive) to fund the underlying wastewater monitoring and pretreatment program costs.

Task 3.6 – Prepare Draft and Final Surcharge Rates and Billing Practices Report

ANNUAL CONSULTANT shall recommend updated rates and charges based on the revised local limits. ANNUAL CONSULTANT shall prepare and present a draft and final report of the surcharge rates and billing practices study. A single meeting/presentation with the CITY is included in this task to present the draft results and review the CITY's comments. ANNUAL CONSULTANT shall submit a draft report in electronic format for review and comment by the CITY, prior to the presentation of results. ANNUAL CONSULTANT shall receive and consolidate comments from the CITY in the final report. Five (5) hard-copies and one (1) electronic/PDF-copy of the final report shall be forwarded to the CITY. ANNUAL CONSULTANT shall also provide the water rate and surcharge rate model to the CITY at the conclusion of the study.

Task 3.7 – Presentations and Meetings

In order to provide Phase 3 services and work products, ANNUAL CONSULTANT shall prepare for and participate in a total of three meetings the following meetings:

- Surcharge rates kickoff meeting
- Surcharge Analysis Draft Report Review Meeting
- Industry Meeting #2 (to present the proposed surcharge rates to the CITY and to the industries),
or
- CITY Council Meeting (to present the revised local limits and surcharge rates to the Council)

It is anticipated that the surcharge analysis draft report review meeting and the industry meeting #2 can be combined over multiple days, with two person-trips for both the local limits and surcharge rates consultants.

Project Schedule

Table 2 summarizes the major project milestones associated with the above tasks. The meetings dates are tentative and may be adjusted to meet availability of CITY and/or industries.

Milestone / Phase	Date / Duration
Notice to Proceed	June 2015
Phase 1: Review and Evaluate the Basis for Current Local Limits	3-4 months from NTP
Phase 2: Pending Results of Phase 2, Prepare Updated Local Limits	+ 5-10 months
Phase 3: Pending Results of Phase 3, Update Surcharge Rates and Billing Practices	+ 3-6 months
Total Project Duration	At the CITY's discretion, but no less than 4 months for Phase 1 and no less than 18 months for all Phases.

Clarifications, Assumptions, and Exclusions:

- User manual or model training are excluded.
- In reference to Task 2.3, testing services required under this activity are excluded.
- Direct expense allowance shall be used to reimburse ANNUAL CONSULTANT at cost for normal reimbursable expenses to include printing, delivery and other approved expenses. Mileage shall be reimbursed at \$0.55 per mile.
- Owner's Allowance shall only be utilized with prior written approval from CITY.

**EXHIBIT B
FEE SCHEDULE**

Description	Budget
Phase 1 Review and Evaluate the Basis for Current Local Limits	\$ 30,717.00
1.1 Charter Meeting	\$ 12,601.00
1.2 Data Collection	\$ 5,596.00
1.3 Data-Regulatory Review and Evaluation	\$ 3,700.00
1.4 Prepare Technical Document	\$ 8,820.00
Phase 2 Prepare Updated Local Limits	\$ 63,943.00
2.1 Identification and Selection of Pollutants for Further Testing	\$ 3,006.00
2.2 Collection of Additional Data	\$ 5,386.00
2.3 Site Specific Concurrent Sampling and Testing of System	\$ 4,267.00
2.4 Data Compiling and Analysis	\$ 9,368.00
2.5 Apply Data Calculations, Best Prof. Judgment, Select Limits	\$ 5,150.00
2.6 Complete Written Rationale	\$ 19,755.00
2.7 CITY of Chandler Review	\$ 6,621.00
2.8 Initial Submittal for Review to Arizona DEQ for Approval	\$ 1,134.00
2.9 Consideration of Permit Authority Comments	\$ 4,358.00
2.10 Presentations and Meetings - Industry Meeting #1	\$ 4,898.00
Phase 3 Update Surcharge Rates and Billing Practice	\$ 49,129.00
3.1 Phase 3 Initiation and Data Collection	\$ 4,836.00
3.2 Determine Revenue Requirements	\$ 5,764.00
3.3 Perform Cost of Service Analysis	\$ 5,541.00
3.4 Calculate Proposed Surcharge Rates	\$ 10,474.00
3.5 Review Billing Practices	\$ 5,150.00
3.6 Prepare Draft and Final Reports	\$ 13,036.00
3.7 Presentations and Meetings - Industry Meeting #2	\$ 4,328.00
Subtotal	\$ 143,789.00
Allowances	\$ 26,000.00
Direct Expense Allowance	\$ 12,000.00
Owner's Allowance	\$ 14,000.00
Total	\$ 169,789.00