

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

STANDARD FORM OF AGREEMENT  
BETWEEN OWNER AND ENGINEER  
FOR  
PROFESSIONAL SERVICES

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*a practice division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

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AMERICAN COUNCIL OF ENGINEERING COMPANIES

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AMERICAN SOCIETY OF CIVIL ENGINEERS

This Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (No. C-700, 2002 Edition) of the Engineers Joint Contract Documents Committee. Their provisions are interrelated, and a change in one may necessitate a change in the other. For guidance on the completion and use of this Agreement, see EJCDC User's Guide to the Owner-Engineer Agreement, No. E-001, 2002 Edition.

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**STANDARD FORM OF AGREEMENT  
BETWEEN OWNER AND ENGINEER  
FOR  
PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT effective as of November 5, 2012, ("Effective Date") between the City of Willcox, Arizona ("Owner") and Wilson Engineers, LLC ("Engineer").

Owner intends to reconstruct and improve the existing 0.6 MGD City of Willcox WWTP. This contract is for the professional services to design and permit the expansion to the WWTP. ("Project").

Owner and Engineer agree as follows:

**ARTICLE 1 - SERVICES OF ENGINEER**

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**1.01 Scope**

A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

services are set forth or specific dates by which services are to be completed are provided in Exhibit A, and are hereby agreed to be reasonable.

B. If, through no fault of Engineer, such periods of time or dates are changed, or the orderly and continuous progress of Engineer's services is impaired, or Engineer's services are delayed or suspended, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

**ARTICLE 2 - OWNER'S RESPONSIBILITIES**

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**2.01 General**

A. Owner shall have the responsibilities set forth herein and in Exhibit B.

C. If Owner authorizes changes in the scope, extent, or character of the Project, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.

B. Owner shall pay Engineer as set forth in Exhibit C.

D. Owner shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Engineer's performance of its services.

C. Owner shall be responsible for, and Engineer may rely upon, the accuracy and completeness of all requirements, programs, instructions, reports, data, and other information furnished by Owner to Engineer pursuant to this Agreement. Engineer may use such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement.

E. If Engineer fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted, then Owner shall be entitled to the recovery of direct damages resulting from such failure.

**ARTICLE 3 - SCHEDULE FOR RENDERING SERVICES**

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**3.01 Commencement**

A. Engineer shall begin rendering services as of the Effective Date of the Agreement.

**3.02 Time for Completion**

A. Engineer shall complete its obligations within a reasonable time. Specific periods of time for rendering

## ARTICLE 4 - INVOICES AND PAYMENTS

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### 4.01 Invoices

A. *Preparation and Submittal of Invoices.* Engineer shall prepare invoices in accordance with its standard invoicing practices and the terms of Exhibit C. Engineer shall submit its invoices to Owner on a monthly basis. Invoices are due and payable within 30 days of receipt.

### 4.02 Payments

A. *Application to Interest and Principal.* Payment will be credited first to any interest owed to Engineer and then to principal.

B. *Failure to Pay.* If Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, then:

1. amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day; and

2. Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Owner has paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension.

C. *Disputed Invoices.* If Owner contests an invoice, Owner may withhold only that portion so contested, and must pay the undisputed portion.

D. *Legislative Actions.* If after the Effective Date of the Agreement any governmental entity takes a legislative action that imposes taxes, fees, or charges on Engineer's services or compensation under this Agreement, then the Engineer may invoice such new taxes, fees, or charges as a Reimbursable Expense to which a factor of 1.0 shall be applied. Owner shall pay such invoiced new taxes, fees, and charges; such payment shall be in addition to the compensation to which Engineer is entitled under the terms of Exhibit C.

## ARTICLE 5 - OPINIONS OF COST

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### 5.01 Opinions of Probable Construction Cost

A. Engineer's opinions of probable Construction Cost are to be made on the basis of Engineer's experience and qualifications and represent Engineer's best judgment as an experienced and qualified professional generally familiar

with the construction industry. However, since Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer. If Owner wishes greater assurance as to probable Construction Cost, Owner shall employ an independent cost estimator as provided in Exhibit B.

### 5.02 Opinions of Total Project Costs

A. The services, if any, of Engineer with respect to Total Project Costs shall be limited to assisting the Owner in collating the various cost categories which comprise Total Project Costs. Engineer assumes no responsibility for the accuracy of any opinions of Total Project Costs.

## ARTICLE 6 - GENERAL CONSIDERATIONS

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### 6.01 Standards of Performance

A. The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with Engineer's services.

B. Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct any such deficiencies in technical accuracy without additional compensation except to the extent such corrective action is directly attributable to deficiencies in Owner-furnished information.

C. Engineer may employ such Consultants as Engineer deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objections by Owner.

D. Subject to the standard of care set forth in paragraph 6.01.A, Engineer and its Consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.

E. Engineer and Owner shall comply with applicable Laws and Regulations and Owner-mandated standards that Owner has provided to Engineer in writing. This Agreement is based on these requirements as of its Effective Date. Changes to these requirements after the

Effective Date of this Agreement may be the basis for modifications to Owner's responsibilities or to Engineer's scope of services, times of performance, and compensation.

G. Engineer shall not be required to sign any documents, no matter by whom requested, that would result in the Engineer having to certify, guarantee, or warrant the existence of conditions whose existence the Engineer cannot ascertain. Owner agrees not to make resolution of any dispute with the Engineer or payment of any amount due to the Engineer in any way contingent upon the Engineer signing any such documents.

H. Engineer shall not at any time supervise, direct, or have control over Contractor's work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by Contractor, for security or safety at the Site, for safety precautions and programs incident to the Contractor's work in progress, nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor's furnishing and performing the Work.

I. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform the Work in accordance with the Contract Documents.

J. Engineer shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any of their agents or employees or of any other persons (except Engineer's own employees and its Consultants) at the Site or otherwise furnishing or performing any Work; or for any decision made on interpretations or clarifications of the Contract Documents given by Owner without consultation and advice of Engineer.

#### **6.02 Design without Construction Phase Services**

A. If Engineer's Basic Services under this Agreement do not include Project observation, or review of the Contractor's performance, or any other Construction Phase services, then (1) Engineer's services under this Agreement shall be deemed complete no later than the end of the Bidding or Negotiating Phase; (2) Engineer shall have no design or shop drawing review obligations during construction; (3) Owner assumes all responsibility for the application and interpretation of the Contract Documents, contract administration, construction observation and review, and all other necessary Construction Phase engineering and professional services; and (4) Owner waives any claims against the Engineer that may be connected in any way thereto.

#### **6.03 Use of Documents**

A. All work products (electronically or manually generated) including, but not limited to: plans, specifications, cost estimates, studies, design analyses, original drawings, and other related documents which are prepared in the performance of this Contract (collectively referred to as "Documents") are to be the property of the City. In the event these Documents are altered, modified or adapted without the written consent of the Engineer, which consent the Engineer shall not unreasonably withhold, the City agrees to hold the Engineer harmless to the extent permitted by law from the legal liability arising out of the City's alteration, modification or adaptation of the Documents.

B. The copyrights, patents, trade secrets or other intellectual property rights associated with the ideas, concepts, techniques, inventions, processes or works of authorship developed or created by the Engineer, its subconsultants or personnel, during the course of performing this Contract or arising out of the Project shall belong to the Engineer.

C. With this Contract, the Engineer and its subconsultants hereby grant a license to the City, its agents, employees, and representatives for an indefinite period of time to reasonably use, make copies, and distribute as appropriate the Documents, works or deliverables developed or created as a result of the Project and this Contract. This license also includes the making of derivative works. In the event that the derivative works require the City to alter or modify the Documents, then the provisions of Section 6.03.A apply.

D. The Engineer and its subconsultants shall endorse by professional seal all plans, works, and deliverables prepared by each for this Contract as required by state law.

#### **6.04 Insurance**

A. Engineer shall procure and maintain insurance as set forth in Exhibit G, "Insurance." Engineer shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Engineer. Engineer shall deliver to the Owner a certificate of insurance evidencing the coverages indicated in Exhibit G. Such certificate shall be furnished prior to commencement of Engineer's services and at renewals thereafter during the life of the Agreement.

B. At any time, Owner may request that Engineer or its Consultants, at Owner's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective than those specified in Exhibit G. If so requested by Owner, and if commercially available, Engineer shall obtain and shall require its Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of

time as requested by Owner, and Exhibit G will be supplemented to incorporate these requirements.

## 6.05 Suspension and Termination

### A. Suspension.

By Owner: Owner may suspend the Project upon seven days written notice to Engineer.

By Engineer: If Engineer's services are substantially delayed through no fault of Engineer, Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement.

B. *Termination.* The obligation to provide further services under this Agreement may be terminated:

1. For cause,

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.

b. By Engineer:

1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or

2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control.

3) Engineer shall have no liability to Owner on account of such termination.

c. Notwithstanding the foregoing, this Agreement will not terminate under paragraph 6.05.B.1.a if the party receiving such notice begins, within seven days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience,

a. By Owner effective upon Engineer's receipt of notice from Owner.

C. *Effective Date of Termination.* The terminating party under paragraph 6.05.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

### D. Payments Upon Termination.

1. In the event of any termination under paragraph 6.05, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished and all Reimbursable Expenses incurred through the effective date of termination. Upon making such payment, Owner shall have the limited right to the use of Documents, at Owner's sole risk, subject to the provisions of paragraph 6.03.E.

2. In the event of termination by Owner for convenience or by Engineer for cause, Engineer shall be entitled, in addition to invoicing for those items identified in paragraph 6.05.D.1, to invoice Owner and to payment of a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with Engineer's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit C.

## 6.06 Controlling Law

A. This Agreement is to be governed by the law of the state in which the Project is located.

#### 6.07 Successors and Assigns

A. The City and the Engineer shall each bind itself, its partners, successors, assigns, and legal representatives to the other party to this Contract and to the partners, successors, assigns, and legal representatives of such other party in respect to all covenants of this Contract. Neither the City nor the Engineer shall assign, sublet, or transfer its interest in this Contract without the written consent of the other. In no event shall any contractual relation be created between any third party and the City.

#### 6.08 Dispute Resolution

A. Owner and Engineer agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to invoking the procedures of Exhibit H or other provisions of this Agreement, or exercising their rights under law.

B. If the parties fail to resolve a dispute through negotiation under paragraph 6.08.A, then either or both may invoke the procedures of Exhibit H. If Exhibit H is not included, or if no dispute resolution method is specified in Exhibit H, then the parties may exercise their rights under law.

#### 6.09 Environmental Condition of Site

A. Owner has provided a previously completed Environmental Site Assessment on the project site to the Engineer documenting Constituents of Concern located at or near the Site, including type, quantity, and location.

B. Owner represents to Engineer that to the best of its knowledge no Constituents of Concern, other than those disclosed in writing to Engineer, exist at the Site.

C. If Engineer encounters an undisclosed Constituent of Concern, then Engineer shall notify (1) Owner and (2) appropriate governmental officials if Engineer reasonably concludes that doing so is required by applicable Laws or Regulations.

D. It is acknowledged by both parties that Engineer's scope of services does not include any services related to Constituents of Concern. If Engineer or any other party encounters an undisclosed Constituent of Concern, or if investigative or remedial action, or other professional services, are necessary with respect to disclosed or undisclosed Constituents of Concern, then Engineer may, at its option and without liability for consequential or any

other damages, suspend performance of services on the portion of the Project affected thereby until Owner: (1) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Constituents of Concern; and (2) warrants that the Site is in full compliance with applicable Laws and Regulations.

E. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Engineer's services under this Agreement, then the Engineer shall have the option of (1) accepting an equitable adjustment in its compensation or in the time of completion, or both; or (2) terminating this Agreement for cause on 30 days notice.

F. Owner acknowledges that Engineer is performing professional services for Owner and that Engineer is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, which are or may be encountered at or near the Site in connection with Engineer's activities under this Agreement.

#### 6.10 Indemnification and Mutual Waiver

A. *Indemnification by Engineer.* To the fullest extent permitted by law, Engineer shall indemnify and hold harmless Owner, and Owner's officers, directors, partners, agents, consultants, and employees from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Engineer or Engineer's officers, directors, partners, employees, or Consultants.

B. *Indemnification by Owner.* To the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer, Engineer's officers, directors, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Owner or Owner's officers,

directors, partners, agents, consultants, or employees, or others retained by or under contract to the Owner with respect to this Agreement or to the Project.

C. *Environmental Indemnification.* In addition to the indemnity provided under paragraph 6.10.B of this Agreement, and to the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer and its officers, directors, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals, and all court, arbitration, or other dispute resolution costs) caused by, arising out of, relating to, or resulting from a Constituent of Concern at, on, or under the Site, provided that (i) any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this paragraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.

D. *Percentage Share of Negligence.* To the fullest extent permitted by law, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.

E. *Mutual Waiver.* To the fullest extent permitted by law, Owner and Engineer waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project.

#### 6.11 Miscellaneous Provisions

A. *Notices.* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, by facsimile, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

B. *Survival.* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.

C. *Severability.* Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Engineer, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

D. *Waiver.* A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

E. *Accrual of Claims.* To the fullest extent permitted by law, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of Substantial Completion.

### ARTICLE 7 - DEFINITIONS

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#### 7.01 Defined Terms

A. Wherever used in this Agreement (including the Exhibits hereto) terms (including the singular and plural forms) printed with initial capital letters have the meanings indicated in the text above or in the exhibits; or in the following provisions;:

1. *Additional Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 2, of this Agreement.

2. *Basic Services*--The services to be performed for or furnished to Owner by Engineer in accordance with Exhibit A, Part 1, of this Agreement.

3. *Construction Cost*--The cost to Owner of those portions of the entire Project designed or specified by Engineer. Construction Cost does not include costs of services of Engineer or other design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, or Owner's costs for legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with the Project, or the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement. Construction Cost is one of the items comprising Total Project Costs.

4. *Constituent of Concern*--Any substance, product, waste, or other material of any nature whatsoever (including, but not limited to, Asbestos,

Petroleum, Radioactive Material, and PCBs) which is or becomes listed, regulated, or addressed pursuant to [a] the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); [b] the Hazardous Materials Transportation Act, 49 U.S.C. §§1801 et seq.; [c] the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); [d] the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; [e] the Clean Water Act, 33 U.S.C. §§1251 et seq.; [f] the Clean Air Act, 42 U.S.C. §§7401 et seq.; and [g] any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

5. *Consultants*--Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer's independent professional associates, consultants, subcontractors, or vendors.

6. *Documents*--Data, reports, Drawings, Specifications, Record Drawings, and other deliverables, whether in printed or electronic media format, provided or furnished in appropriate phases by Engineer to Owner pursuant to this Agreement.

7. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings are not Drawings as so defined.

8. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

9. *Reimbursable Expenses*--The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic and Additional Services for the Project.

10. *Resident Project Representative*--The authorized representative of Engineer, if any, assigned to assist Engineer at the Site during the Construction Phase. The Resident Project Representative will be Engineer's agent or employee and under Engineer's supervision. As used herein, the term Resident Project Representative includes any assistants of Resident Project Representative agreed to by Owner.

11. *Specifications*--That part of the Contract Documents consisting of written technical

descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

12. *Total Project Costs*--The sum of the Construction Cost, allowances for contingencies, and the total costs of services of Engineer or other design professionals and consultants, together with such other Project-related costs that Owner furnishes for inclusion, including but not limited to cost of land, rights-of-way, compensation for damages to properties, Owner's costs for legal, accounting, insurance counseling and auditing services, interest and financing charges incurred in connection with the Project, and the cost of other services to be provided by others to Owner pursuant to Exhibit B of this Agreement.

## ARTICLE 8 - EXHIBITS AND SPECIAL PROVISIONS

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### 8.01 Exhibits Included

- A. Exhibit A, "Engineer's Services," consisting of 11 pages.
- B. Exhibit B, "Owner's Responsibilities," consisting of 2 pages.
- C. Exhibit C, "Payments to Engineer for Services and Reimbursable Expenses," consisting of 2 pages.
- D. Exhibit G, "Insurance," consisting of 1 page.
- E. Exhibit H, "Dispute Resolution," consisting of 1 page.

### 8.02 Total Agreement

- A. This Agreement (consisting of pages 1 to 9 inclusive, together with the exhibits identified above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings.

### 8.03 Designated Representatives

- A. With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of Owner under this Agreement. Such individuals shall have authority to transmit instructions,

receive information, and render decisions relative to the Project on behalf of each respective party.

#### **8.04 Conflict of Interest**

A. All parties hereby are on notice that this Agreement is subject to the terms of A.R.S. § 38 511 relating to conflicts of interest.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

Owner: **CITY OF WILLCOX**

Engineer: **WILSON ENGINEERS, LLC**

By: Robert A. Irvin  
Title: Mayor

By: Michael E. Johnson, P.E.  
Title: Principal

Date Signed: November 5, 2012

Date Signed: November 5, 2012

**ATTEST:**

Firm Registration No. 14460

State of: Arizona

\_\_\_\_\_  
City Clerk

Approved as to Form:

\_\_\_\_\_  
City Attorney

Address for giving notices:

101 South Railroad Ave. Ste. B  
Willcox, Arizona 85643

Address for giving notices:

9633 South 48<sup>th</sup> Street, Suite 290  
Phoenix, AZ 85044

Designated Representative (see paragraph 8.03.A):

Dave Bonner

Designated Representative (see paragraph 8.03.A):

Michael E. Johnson, P.E.

Title: Public Services & Works Director

Title: Principal

Phone Number: (520) 384-6447

Phone Number: (480) 893-8860

Facsimile Number: (520) 384-3993

Facsimile Number: (480) 893-8968

E-Mail Address: dbonner@willcoxcity.org

E-Mail Address: mike.johnson@wilson-engineers.com

## EXHIBIT A – Engineer’s Services

This is **EXHIBIT A**, consisting of 11 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated November 5, 2012.

### Engineer’s Services

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Article 1 of the Agreement is amended and supplemented to include the following agreement of the parties. Engineer shall provide Basic and Additional Services as set forth below.

The City of Willcox is currently operating a facultative lagoon system permitted to treat up to 600,000 gpd. The existing system is not meeting permit requirements for the current flows of approximately 300,000 gpd and therefore the City is looking to reconstruct the WWTP utilizing Oxidation Ditch technology to treat up to 600,000 gpd. Accordingly, the purpose of this Task Order is to provide the engineering services required to design the reconstruction improvements, close the existing lagoons, and obtain the required regulatory permits.

### **PERMITTING SERVICES SUMMARY:**

The permits to be acquired under this scope of services are as follows:

- APP Closure Plan issued by ADEQ for closure of Lagoon No. 1.
- Major modification to the Aquifer Protection Permit (APP) issued by ADEQ.
- Update to the Arizona Pollutant Discharge Elimination System (AZPDES) Permit issued by ADEQ.
- A Type 2 Reclaimed Water General Permit issued by ADEQ.
- Building Permit (including Grading and Drainage Permit) from the City of Willcox.

### **DESIGN SERVICES SUMMARY:**

Design services will be provided for the following unit processes:

- Influent Screens: Add new mechanical screening equipment sized to accommodate the wastewater flows projected to minimize fouling and damage to influent pumps. The new screening equipment will be placed in the existing headworks building with modifications to the influent channel as required to fit the new screen.
- Influent Pump Station: Modify the existing Influent Pump Station to as needed based on the process change including replacing the existing influent pumps; adding a third influent pump and piping; and updating the controls.
- Oxidation Ditches: Two new independent oxidation ditches will be added to accommodate the wastewater flows projected.
- Secondary Clarifiers: Two new circular clarifiers will be added to accommodate the wastewater flows projected.
- RAS/WAS Pump Station: A new RAS/WAS Pump Station will be added to accommodate the wastewater recycle flows (return activated sludge) and the waste flows (waste activated sludge).
- Scum Pump Station: A new Scum Pump Station will be added to pump scum from the secondary clarifiers to the waste activated sludge tank.
- An approximate 1,600 sf Pre-engineered Operations Building to house new electrical gear (MCCs, breakers panels, etc), a wastewater laboratory, and SCADA Control system. Scope assumes architectural, HVAC, and structural engineering services for a pre-engineered building. The scope also assumes that fire sprinkler and fire alarm engineering shall be provided to produce performance requirements for the related systems (with a deferred submittal to the City’s Building Department during construction).
- Tertiary Filters: Tertiary filters (in pre-engineered containment vessels) to accommodate the wastewater flows projected.
- Disinfection: Add the following new processes and equipment to accommodate the projected flows: sodium hypochlorite bulk storage tank, sodium hypochlorite metering pumps, concrete chlorine contact basin, de-chlorination chemical storage, and de-chlorination chemical metering pumps.
- Effluent Pump Station: Add a new effluent pump station to pump the projected effluent flows to the outfall at Lake Cochise or to the Twin Lakes Golf Club.
- Non Potable Water (NPW) Plant Water System: The effluent pump station will also be equipped with two additional pumps and a hydropneumatic tank to provide NPW service to the WWTP. To convey the NPW

throughout the new facility, a new NPW distribution system will also be provided. The NPW system will provide water for pump seals, process wash water, and wash down water hydrants.

- Twin Lakes Golf Club: Close the polishing ponds at the Golf Club. Line and convert one pond to reclaimed water storage for the golf course. Leave the other two ponds unlined to allow for infiltration. **NOTE:** *No engineering effort has been assumed to design an irrigation pump station for the golf course.*
- Biosolids Storage. Add an aerated sludge storage tank to accommodate the projected sludge volume produced by the WWTP. **NOTE:** *It is assumed that the sludge will be hauled to an approved landfill and that Class B sludge or better is **not** required.*
- Biosolids Dewatering: Add a new sludge pumping station, sludge dewatering rotary screw press, and conveyor to discharge biosolids to a dumptruck.
- Septage Receiving: Add septage receiving equipment to facilitate prescreening of septage for discharge directly into the new WAS holding tank(s).
- Coordinate with the local power provider to install a new electrical service for the facility.
- Standby power: Add a new standby power generator of sufficient size to provide a sufficient backup power supply to the WWTP in the event of a power outage as required by ADEQ.
- An approximate 2,400 sf pre-engineered steel maintenance building will be provided. Per the correspondence included in Appendix H of the PER, the maintenance building will include four roll up doors, overhead trolley crane, gas bay heaters and evap cooling, single and three phase power, and potable water drinking fountain. Equipment to include: outside pressure washer/station, workbench with vise, air compressor, drill press, and Gator (utility vehicle). Scope assumes architectural, HVAC, and structural engineering services for a pre-engineered building. The scope also assumes that fire sprinkler and fire alarm engineering shall be provided to produce performance requirements for the related systems (with a deferred submittal to the City's Building Department during construction).
- Maintenance of Plant Operations (MOPO) specifications shall be developed to instruct the contractor on how to coordinate construction activities with the existing operations of the WWTP.
- Transition Plan: a transition plan acceptable to ADEQ will be developed to provide acceptable treatment during the construction of the new WWTP.
- Topographic surveying services: Topographic survey information and a sealed survey control sheet for this project site will be provided.
- Hydrogeological services: The hydrogeological report will be updated with groundwater modeling efforts required by ADEQ in support of the APP Permit.
- Geotechnical investigation services: A geotechnical report will be provided with recommendations on foundation, pipeline bedding, and construction design criteria.

Specific unit processes and support systems **not** currently being expanded/modified/constructed under this project are as follows:

- Grit removal
- Concrete or Steel NPW Reservoir
- Odor control facilities
- Security system (plant access) or upgrades to the perimeter fence or entrance gates.

Other specific services not included in this Scope at this time are as follows:

- Landscape architecture services.
- Off-site improvements to sewer, water, and/or non-potable water infrastructure.
- A property boundary survey.
- Acquisition of an Air Quality Permit for a new standby power diesel generator as required by the Arizona Department of Environmental Quality (ADEQ). It is assumed that this permit will be applied for and acquired during the construction phase.
- A formal "Other" Amendment to the Aquifer Protection Permit (APP).

The detailed engineering services to be provided under this Task Order are defined in the following tasks.

## **TASK 1.0 PROJECT ADMINISTRATION**

The Engineer will perform project administration services as described in the following subtasks:

**Subtask 1.1 Project Coordination Meetings with the City.** Wilson Engineers (herein referred to as Engineer) will conduct meetings and/or workshops with City staff to discuss specific technical aspects of the design; progress in the development of the design, drawings, and specifications; permit applications, closure plan, and related issues that may affect Project results. The Engineer will prepare an agenda for distribution prior to the each meeting and minutes summarizing actionable items from each meeting. For purposes of this scope of services, a total of 12 meetings have been assumed to be used at the City's discretion (half the meetings are assumed to be conducted at the City and half at Engineer's Office). The meetings or workshops will likely consist of the following:

- A detailed Design Kick-off Workshop with the City staff;
- A site visit to the Green Valley WWTP;
- Scheduled progress review meetings and design workshops with City staff

**Subtask 1.2 Monitor Progress and Prepare Status Reports.** The Engineer will report the progress of design activities. The Engineer will update and review the design schedule and deliverables with the City monthly. Progress and schedule tracking will consist of:

- Developing a detailed Project design and deliverable schedule by task;
- Monthly tracking and reporting on progress;
- Provide estimates of construction cost within the Basis of Design Report and at the Agency Design Review Stage (90%).
- Monitoring and management of sub-consultants' scheduled activities.

**Subtask 1.3 Public Meetings with BECC and the City.** The Engineer will attend up to two Public Meetings as required by BECC and the City to present and discuss the project. The Engineer will coordinate with BECC prior to each meeting and prepare base information requested for distribution to attendees. For purposes of this scope of services, it is assumed that one public meeting will be conducted following the 60% completion level and one public meeting following completion of the Agency Review Documents. It has been assumed that the meetings will be conducted at the City.

**NOTE:** A \$500 printing allowance has been assumed to prepare, present, and distribute information boards/fliers for the public meetings.

**Subtask 1.4 Value Engineering Coordination/Response.** BECC has indicated that they will hire a 3<sup>rd</sup> Party Engineer to conduct a value engineering review of the 60% Construction Documents (Subtask 6.1). Accordingly, as part of this task, the Engineer shall coordinate with the 3<sup>rd</sup> Party Reviewer, provide additional information as requested, and review and respond to the question/comments provided.

**Subtask 1.5 Interagency Meetings, Coordination, and Comment Response/Resolution.** The Engineer will distribute copies of the 30% Basis of Design Report, 60% Construction Documents, 90% (Agency Review) Construction Documents, and Final Construction Documents to the following:

- City of Willcox
- BECC
- USDA
- USEPA
- ADEQ

The Engineer will coordinate with the various agencies, summarize and respond in writing to any comments received, and distribute an overall comment response/resolution summary to all agencies. Further, the Engineer shall conduct a review meeting with all agencies at the various deliverable stages (three total) to present the deliverable milestone and issue minutes. For purposes of this scope of services, it has been assumed that the interagency coordination meetings shall be conducted in Phoenix as directed by the City of Willcox.

## TASK 2.0 DATA COLLECTION

**Subtask 2.1 Review Historical Operating Data.** The Engineer will obtain and evaluate the available WWTP influent data and past performance records from the City for the purpose of establishing a baseline of performance for the facility. Further, in support of the APP, AZPDES, and Closure Plan Tasks outlined under Task 4.0, the following data will be collected:

- APP self monitoring report forms for discharge and point of compliance well sampling submitted since the time of permit issuance including laboratory analytical results.
- Any documentation for exceeding APP alert levels, discharge limits or Aquifer Quality Standards.
- Records for any spills and cleanups associated with the permitted facilities.
- A summary of relevant site investigations including soil and groundwater sampling conducted.
- Sludge sampling and disposal records since the time of permit issuance.

**Subtask 2.2 Site Survey Allowance.** A site survey was previously conducted for the WWTP. However, it is assumed that a topographic survey and control sheet for the golf course treatment ponds (intended for closure) is not available. Accordingly, the Engineer will have the golf course ponds surveyed in order to provide base sheets with topographic mapping shown at 1-ft contours. Base sheets will be provided at scale of 1"= 40'.

**Subtask 2.3 Hydrogeological Services.** The Engineer's subconsultant (Clear Creek Associates) will provide hydrogeological consulting services in support of the Willcox WWTP design. Services shall include all groundwater modeling efforts required by ADEQ in support of the APP Permit only.

**Subtask 2.4 Geotechnical Services.** It is assumed that a recent geotechnical engineering report for the site is not available. Accordingly the Engineer's subconsultant (Terracon) will provide geotechnical consulting services in support of the Willcox WWTP design. Services shall include field and laboratory testing for the purpose of providing geotechnical recommendations relative to subsurface soil conditions, foundation design, pipeline bedding, earthwork, and drainage.

### **TASK 3.0 ADEQ AQUIFER PROTECTION PERMIT (APP) CLOSURE EFFORT**

The existing treatment plant consists of two main aerated treatment lagoons and it is the City's desire to remove the lagoons from services as part of this project. For this reason, as part of this task, Aquifer Protection Permit Closure Plans for the treatment lagoons and golf course ponds will be developed and submitted to ADEQ for review and approval.

In addition, the City has indicated a desire to locate the new WWTP facilities within the confines of Lagoon No. 1. Accordingly, implementation of the APP Closure Plans will need to be conducted in a phased approach as follows:

- Phase 1: Implementation of the APP Closure Plan for Lagoon No. 1 will need to be conducted prior to constructing the new treatment processes.
- Phase 2: Implementation of the APP Closure Plan for Lagoon No. 2 shall be conducted following startup of the new WWTP and decommissioning of Lagoon No. 2. At this time, Phase 2 Implementation is not included as part of this Scope of Services but is anticipated to be included in the future construction services contract.

**Subtask 3.1 APP Closure Plan Development.** The Engineer shall provide services to develop an Aquifer Protection Permit Closure Plan, as required by R-18-9-A209, for the existing wastewater treatment lagoons and submit to ADEQ for review and approval. The scope of services for development of the APP Closure Plan is based on the following assumptions:

1. No closure requirements are specified in the existing APP.
2. No hazardous materials exist on the site.
3. No asbestos exists on the site.
4. There has been no soil or groundwater contamination on or below the site attributed to the permitted facilities and that the City of Willcox can provide groundwater monitoring Laboratory Analytical Reports.
5. Existing facultative lagoons are lined and have not caused soil and/or groundwater contamination.

**Closure Work Plan:** The Engineer will prepare a draft Closure Work Plan describing the activities recommended for closing the existing APP permitted facilities at the WWTP. The work plan will include the following:

1. Results of the data review.

2. Documented estimates of material quantities.
3. Approximate quantity and chemical, biological and physical characteristics of each waste proposed for removal from the facility.
4. Methodology for draining the existing lagoons of liquid and removal of sediment and sludge, proposed destination of the removed materials and documentation that the destination is approved to accept the materials.
5. Plan for removal and disposal of existing equipment.
6. Plan for site grading.
7. Estimated cost of closure.
8. Schedule for implementation of each Closure Plan.

The Engineer will submit four copies of the APP Closure Plan to ADEQ for review and comment. The Engineer will coordinate with ADEQ and address ADEQ comment per Task 3.3.

**Subtask 3.2 APP Closure Plan Implementation Phase I.** Once the APP Closure Plan has been approved by ADEQ, the ENGINEER shall take a phased approach to implementing the Closure Plan. Phase I will include the following:

- **3.2.1 - Lagoon No. 1 Closure Sampling and Analysis:** The Engineer shall sample, test, and analyze the sludge in Lagoon No. 1 for contaminants as required by the approved Closure Plan.  
*NOTE: An allowance has been included for the sampling effort and laboratory analyses. Invoices received for the environmental sampling and laboratory analyses shall be provided to the City for reimbursement. This does not include materials testing service during construction.*
- **3.2.2 - Lagoon No. 1 Closure Construction Document Preparation:** As required by ADEQ in their May 26, 2011, letter, the ENGINEER shall prepare plans and specifications to dredge and re-grade Lagoon No. 1, as well as, remove and dispose of existing treatment equipment and materials. One of the golf course ponds will also be re-lined to serve as a NPW storage basin for the golf course irrigation system (no irrigation system improvements are assumed). This phase will be completed prior to beginning construction of the WWTP improvements planned for the Lagoon No. 1 area. The Engineer will submit up to six (6) 11x17 size copies and one electronic copy in pdf format of the 60% and 90% Preliminary Plans and specifications for review by the City of Willcox, BECC and USDA. The Engineer will incorporate comments and deliver one (1) final reproducible set of construction documents and one (1) electronic copy in pdf format.
- **3.2.3 – Bidding Assistance:** Provide services to assist the City in competitively bidding Phase 1 APP Closure Plan Implementation. Attend the pre-bid conference and a site visit with prospective bidders. Answer bidders' questions and issue addenda as necessary.  
*NOTE: Per Task 3.2.3, the ENGINEER shall provide one (1) reproducible full size copy of the plans and specifications, and one (1) electronic set of final plans and specifications in pdf format. It is assumed that the City will provide printing services for all bid sets issued.*
- **3.2.4 – Construction Inspection:** Provide engineering and inspection services to review the construction efforts associated with the Phase 1 APP Closure Plan Implementation. The following subtasks will be completed as part of this task:
  - Attend pre-construction meeting with the City and Contractor
  - The ENGINEER shall review and respond to RFI's issued by the Contractor. This effort assumes up to 10 RFI's.
  - The ENGINEER's Construction Observer shall conduct up to eight (8) on-site observations of the work in progress to determine if the work is proceeding in accordance with the construction documents.
  - Before ENGINEER issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction in accordance with the requirements of the construction documents.
  - After the Contractor has completed the work associated with the correction list, the Construction Observer and Engineer shall conduct a final inspection in the company of the City and Contractor. The ENGINEER shall prepare a final list of items to be completed or corrected in accordance with the requirements of the construction documents.

- After the Contractor has completed the work of the final correction list and upon written notice from the Contractor, review and determine that items on the final list have been completed or corrected and make recommendations to the City concerning acceptance of the project.
- Accompany visiting inspectors representing public or other agencies having jurisdiction over the project, record the outcome of these inspections and report to ENGINEER.
- Certify to ADEQ that construction conforms with the approved Closure Plan.

**Subtask 3.3 APP Closure Plan Implementation Phase II.** No effort has been assumed to close Lagoon No. 2 as this time. It is assumed that implementation of the Phase II Closure Plan will occur after the new WWTP is on-line. For that reason, efforts associated with Phase II are assumed to be conducted under a separate future contract.

**Subtask 3.4 ADEQ APP Closure Plan Coordination.** The Engineer shall monitor the status of the APP Closure Plan with ADEQ, provide additional information as requested by ADEQ, respond to deficiency notifications from ADEQ, and response to comments issued by ADEQ. This will also include attending one meeting with the City of Willcox and ADEQ to present the Closure Plan and to obtain ADEQ staff's comments and suggestions prior to submittal. The Engineer will prepare a meeting agenda and meeting minutes.

**NOTE:** *Applicable fees established by ADEQ for the Closure Plan are not included. It is assumed that all fees established by ADEQ for the Closure Plan shall be paid directly by the City of Willcox for this project.*

#### **TASK 4.0 PRELIMINARY DESIGN (APP MAJOR AMENDMENT)**

In support of the APP Major Amendment Permit Application, Wilson Engineers shall update the previously completed Basis of Design Report for the Willcox Wastewater Treatment Plant. The Design Report shall be amended to reflect the proposed WWTP capacity (reduced to 600,000 gpd) and updated treatment approach desired by the City and shall meet the requirements of the ADEQ APP Permitting Process. Because the facility is less than 1.0 MGD, this includes providing sufficient design detail within the Basis of Design Report for ADEQ to determine the adequacy of the proposed facility design (without submitting final engineering plans and specifications). For purposes of this scope of services, it is assumed that ADEQ will find sufficient detail if the unit process design is brought to approximately a 45% completion stage with the remaining engineering services being brought to a 30% completion level. The detailed design effort will be strategically placed within the Report to assist ADEQ in their review.

The following subtasks further define the services being provided under this Task.

**Subtask 4.1 Update Draft Basis of Design Report (Major Amendment).** Five (5) copies of the Draft Basis of Design Report will be submitted to the City of Willcox and three (3) copies will be provided to ADEQ for review. The purpose of the report is to document the engineering design basis for the facilities to be constructed as a part of this project so that a complete APP Permit Application can be submitted to ADEQ. The unit processes to be documented in the report for this facility are as described in Task 4.3. The Detailed Design Report shall meet the requirements set forth in the Arizona Revised Statute R19-9-B202A for obtaining APP Permits. At a minimum, this statute requires the following to be included in the Detailed Design Report:

1. Wastewater Characterization
2. Method of Disposal
3. BADCT Demonstration
4. Description of normal operation
- 5a. Operation and Maintenance Plan
- 5b. Contingency and Emergency Operation Plan
6. Construction Management Controls
7. System Start Up Plan
8. Site Diagram for Setbacks
9. Engineers Certification

A formal draft O&M Manual will be completed under Task 6.4. However, it is assumed that ADEQ will accept a brief summary of the O&M Plan (item 5a) as part of the Detailed Design Report with the stipulation that a Final Operations and Maintenance Manual for the Willcox WWTP will be submitted for approval prior to startup of the upgraded plant. The remaining requirements will be developed as part of this task.

**Subtask 4.2 Final Detailed Design Report.** Incorporate comments received from the City, BECC, USDA, and ADEQ on the Draft Basis of Design Report and submit five (5) final hard copies of the Final Detailed Design Report to the City and three (3) to ADEQ. An electronic copy shall also be made available for BECC and USDA.

**Subtask 4.3 Update Stage I Engineering Design.** The design scheme and working drawings will be prepared in support of the Basis of Design Report and Aquifer Protection Permit Major Amendment Application. For purposes of this scope of services, it is assumed that ADEQ will find sufficient detail if the unit process design is brought to approximately a 45% completion stage with the remaining engineering services being brought to a 30% completion level. These drawings will be used to convey specific design information about the Project's overall appearance and configuration to the City and ADEQ. The drawings will be included as part of the Basis of Design Report and are intended to assist ADEQ in their review of the APP Application and are not considered adequate for construction. The following areas will be specifically detailed in an effort to satisfy ADEQ's design requirements:

1. Hydraulic design:
  - Hydraulic Profile: The hydraulic profile and analyses required for design (e.g., pipeline hydraulics, pump selection, etc) will be updated and support calculations completed.
2. Civil:
  - The existing on-site utilities will be illustrated and the existing facility horizontal controls and elevations will be confirmed on the current topographic survey.
  - All unit treatment process structures, as required in the design, will be located.
  - Preliminary drawings including overall site layout, yard piping and major grading elements will be partially prepared.
  - Demolition plans and requirements for the existing lagoon #2 will be illustrated as required by ADEQ  
**NOTE:** requirements for Lagoon No. 1 to be shown as part of Phase 1 Closure – See Task 3.2.
3. Unit Process: Plans and sections for the following areas will be completed to such a level as to provide sufficient detail for ADEQ to determine the adequacy of the proposed design. As detailed in the Design Services Summary, the unit process areas will include:
  - Influent Pump Station : new pumps and discharge piping modifications
  - Headworks Modifications: new fine screen
  - BNR Process – new oxidation ditches and ancillary facilities
  - Secondary Clarifiers – two new clarifiers
  - New RAS/WAS/Scum Station
  - New Filters
  - New Disinfection System
  - New Effluent Pump Station or modifications to existing.
  - Biosolids Storage and Pumping
  - Blower Equipment (new positive displacement blowers, piping, and appurtenances for the aerated sludge holding tank).
  - Septage Receiving
  - Biosolids Dewatering (rotary screw press, and a conveyor)
4. Operations Building and Maintenance Building
  - Draft floor plans and sections

## **TASK 5.0 ADEQ APP, AZPDES, AND REUSE PERMITTING**

**Subtask 5.1 ADEQ Pre-Application Meeting.** The Engineer will arrange for and attend a pre-application meeting with ADEQ to discuss the APP Permit requirements and the City of Willcox's intent to close the existing facultative lagoon based treatment facility. As part of this subtask, the Engineer will prepare a pre-application meeting agenda and the required support material for discussion with ADEQ. This will include a preliminary outline the Detailed Design Report (Task 4.1) contents.

**Subtask 5.2 Update APP Major Amendment Application.** The Engineer shall provide services to update the previous draft of the Application for Major Amendment to the existing Aquifer Protection Permit. The Amendment will be updated to reflect a 600,000 gpd treatment facility located within Lagoon No.1 and will reflect changes desired by the City as outlined in the updated PER. The Engineer shall submit the appropriate package (consisting of the Detailed Design Report and completed application) to ADEQ for the Willcox WWTP. In addition to the required ADEQ forms, the Engineer shall update the following components within the application:

1. Amendment Description (Item 12)
2. Design Flow Description (Item 13)
3. Cost Estimates for 0.6 MGD expansions (Items 14 and 15)
4. Demonstration of Technical Capability (Item 16)
5. Facility Compliance History (Item 17)
6. Process Flow Schematic / Diagram (Item 18)
7. Overall Site Maps including Maps with Aerial Photo background and USGS Map background illustrating new and existing processes (Item 19, A and B)
8. Design Documents (Item 19, C)
9. Characterization of Discharge (Item 19, D)
10. Description of BADCT (Item 19, E)
11. Compliance with Aquifer Water Quality Standards (Item 19, F)
12. Contingency Plan (Item 19, G)
13. Hydrogeologic Study (Item 19, H) – being provided by Clear Creek Associates
  - Update Mounding Model.
  - Environmental Database Research.
  - ADWR file research pertaining to Pima Mine Road Recharge Facility.
  - Update Draft Report.
14. Detailed Proposal Indicating Alert Levels and Discharge Limits (Item 19, I)
15. Closure and Post-Closure (Item 19, J)
16. Demonstration of Setbacks (Item 19, K)
17. Other Information (Facility Permits, Zoning information, etc.) (Item 20)

**Subtask 5.3 AZPDES Application.** The Engineer shall provide services to complete an application for amendment to the existing AZPDES Permit and to submit the appropriate package to ADEQ for the Willcox WWTP.

**Subtask 5.4 Type 2 Reclaimed Water General Permit Application.** The Engineer shall provide services to complete the Notice of Intent (NOI) for Type 2 Reclaimed Water General Permit Application for the City of Willcox Golf Course and to submit the appropriate package to ADEQ.

**Subtask 5.5 ADEQ Coordination.** The Engineer shall monitor the status of the Major Amendment to the APP, the AZPDES, and the Type 2 Reclaimed Water permitting processes, provide additional information as requested by ADEQ, respond to deficiency notifications from ADEQ, and review and comment on the draft permits. This task includes providing all necessary information typically required by ADEQ in order for them to issue the permits. This task also assumes up to three meetings with ADEQ. For those meetings, the Engineer will prepare a meeting agenda and distribute meeting minutes.

### **NOTES:**

1. Permit fees required by ADEQ for the APP Major Amendment, AZPDES, and Type 2 Reclaimed Water General Permit are not included. It is assumed that all permitting fees shall be paid directly by the City of Willcox for this project.
2. The APP permitting effort is based on ADEQ waiving the requirement for submitting final plans and specifications for the WWTP.

## **TASK 6.0 CONSTRUCTION DOCUMENTS**

The purpose of this Task is to define the level of engineering design services to be provided for the preparation of Construction Documents for the Willcox WWTP.

**Subtask 6.1 Sixty Percent (60%) Progress Submittal.** Prepare preliminary (60%) construction documents including plans and a construction cost estimate for the Willcox WWTP. The plans shall incorporate the comments received on the Agency Review Design Report / 30% submittal. The 60% Set shall include the following detailed design areas:

1. Civil: Site plan, grading, and yard piping.
2. Influent Pump Station Plan and Sections
3. Influent Screens / Headworks Modifications Plan and Sections
4. Oxidation Ditches Process Plan and Sections
5. Secondary Clarifier Plan and Sections
6. RAS/WAS/Scum Station Plan and Sections
7. Operations Building Plan and Sections
8. Tertiary Filters Plan and Sections
9. Disinfection System Plan and Sections
10. Effluent Pump Station Plan and Sections
11. Sludge Holding Tank (Digester) Plan and Sections
12. Biosolids Dewatering Press Plan and Sections
13. Septage Receiving Plan and Sections
14. Pre-Engineered Maintenance Building
15. Non-potable Water (NPW) System Plan and Sections (Golf Course Pond Lining is assumed as part of Task 3.2)
16. Structural: Process basins, equipment pads, and wet wells.
17. Electrical: Preliminary power supply requirements, motor control center, service entrance section, control descriptions, standby power.
18. Process and Instrumentation Diagrams (P&IDs).
19. SCADA system architecture.

Up to six (6) 11x17 size copies and one electronic copy in pdf format of the 60% Preliminary Plans and specifications will be submitted for review to the City of Willcox, BECC and USDA. A follow up design workshop will be conducted to discuss any comments received from the City, BECC, and USDA.

**Subtask 6.2 Preparation of 90% Plans and Specifications (Agency Review Set).** Prepare preliminary (90%) construction documents including plans, specifications, front end contract documents (based on EJCDC standardized contract documents) and a construction cost estimate for the Willcox WWTP. The plans shall incorporate the comments received on the 60% submittal. The 90% Set shall include the following detailed design areas:

1. Civil: Site plan, grading, and yard piping.
2. Influent Pump Station Plan and Sections
3. Influent Screens / Headworks Modifications Plan and Sections
4. Oxidation Basins Process Plan and Sections

5. Secondary Clarifiers Plan and Sections
6. RAS/WAS Station Plan and Sections
7. Operations Building Plan and Sections
8. Tertiary Filters Plan and Sections
9. Disinfection System Plan and Sections
10. Effluent Pump Station Plan and Sections
11. Sludge Holding Tank (Digester) Plan and Sections
12. Biosolids Dewatering Press Plan and Sections
13. Septage Receiving Plan and Sections
14. Non-potable Water System Plan and Sections (Golf Course Pond Lining is assumed as part of Task 3.2)
15. Pre-Engineered Maintenance Building
16. Structural: Process basins, equipment pads, and wet wells.
17. Electrical and Instrumentation: Power supply requirements, motor control center, service entrance section, control descriptions, lighting, outlets, standby power with automatic transfer switch, and instrumentation.
18. Process and Instrumentation Diagrams (P&IDs).
19. SCADA system architecture

Up to six (6) 11x17 size copies and one electronic copy in pdf format of the Agency Review plans and specifications will be submitted for review to the City of Willcox (for normal review), BECC and USDA. A follow up design workshop will be conducted to discuss any comments received from the City, BECC, and USDA.

***Subtask 6.3 Drainage Report:*** Prepare a Drainage Report for the site identifying the changed conditions resulting from WWTP Project and submit to the City of Willcox Building Department. Wilson Engineers will submit up to six (6) copies the Drainage Report with the Agency Review plans and specifications.

***Task 6.4 Draft Operation and Maintenance Manual.*** As required by the Aquifer Protect Permit, the ENGINEER shall develop an O&M manual that documents and describes the function and control of the following major process units and ancillary facilities:

- Influent Pump Station
- Headworks Facility
- Oxidation Ditches and Related Equipment
- RAS/WAS Pump Station
- Secondary Clarifiers
- Filters
- Disinfection
- Effluent Pump Station
- Aerated Sludge Holding Tank and Related Equipment
- Sludge Feed Pump Station
- Septage Receiving Station
- Dewatering System
- Non-potable water system
- Electrical/Control System

In addition, the ENGINEER shall coordinate with the City to develop a Contingency Plan and Emergency Response Plan as defined by the Aquifer Protection Permit Requirements. Each plan shall be included with the Draft O&M Manual. A complete draft O&M manual will be submitted with the Agency Review Plans and Specifications for review and comment.

Comments will be incorporated or responded to and a final Draft O&M manual will be provided. The Draft O&M Manual will then be updated and finalized during construction to account for the specific equipment/components installed. The Final O&M Manual effort will be included in a later contract and is not included in this task.

**NOTE:** *Draft O&M Manuals shall be provided in 3-ring style notebooks. This task does not include preparation of electronic O&M Manuals.*

***Subtask 6.5 Preparation of 100% Plans and Specifications.*** The final 100% plans and specifications will be prepared incorporating the City of Willcox's, comments. One (1) full size reproducible set of plans, specifications, and front end contract documents, and one (1) electronic set of the plans, specifications, and front documents in pdf format will be provided to the City of Willcox to produce bid sets. In addition, one (1) full size copy of the plans and specifications, and one (1) electronic set of final plans and specifications in pdf format will be provided to BECC and USDA. A final construction cost estimate will be included as well.

## **TASK 7.0 CITY OF WILLCOX PERMITTING**

***Subtask 7.1 Building Permit.*** The Engineer shall complete the Building Permit application and related requirements (i.e. Hazardous Materials Inventory Statement, Grading and Drainage Plan, etc.) and submit up to four (4) full size copies of the Agency Review Plans and Specifications to the City of Willcox Building Department for approval. The Engineer shall coordinate with the City's Building Department and provide additional information as requested.

**NOTE:** *Fees required by the City of Willcox for City issued permits are not included. It is assumed that all City related permitting fees shall be paid for directly by the City of Willcox for this project.*

## **TASK 8.0 BID PERIOD SERVICES**

No effort has been assumed for Bid Period Services. It is assumed that Bid Period Services will be provided under a separate future construction administration contract.

## **END SCOPE OF SERVICES**

