AGENDA ITEM SUMMARY

DATE: 6/2/2014 **DEPARTMENT:** Legal **DEPT. HEAD SIGNATURE:** _____

SUBJECT:

Friedman Memorial Airport Authority ("FMAA") Meeting

AUTHORITY: ☐ ID Code _____ ☐ IAR _____ ☐ City Ordinance/Code _____
(IFAPPLICABLE)

BACKGROUND/SUMMARY OF ALTERNATIVES CONSIDERED:

I just reviewed the FMAA agenda and packet. The agenda and meeting brief are attached. I did not see any item on the agenda which I feel needs to be discussed in the Monday Council meeting.

If you want access to the entire FMAA packet, please go to www.flyfma.com and click onto FMAA Agendas.

Ned

FISCAL IMPACT / PROJECT FINANCIAL ANALYSIS: Caselle #_____
Budget Line Item #_____ YTD Line Item Balance $_____
Estimated Hours Spent to Date: _____ Estimated Completion Date: _____
Staff Contact: _____ Phone # _____
Comments:

ACKNOWLEDGEMENT BY OTHER AFFECTED CITY DEPARTMENTS: (IFAPPLICABLE)

___	City Attorney	___	Clerk / Finance Director	___	Engineer	___	Building
___	Library	___	Planning	___	Fire Dept.	___	_____
___	Safety Committee	___	P & Z Commission	___	Police	___	_____
___	Streets	___	Public Works, Parks	___	Mayor	___	_____

RECOMMENDATION FROM APPLICABLE DEPARTMENT HEAD:

Review and discuss the agenda and meeting brief. If appropriate, direct FMAA representatives on action to be taken at the next FMAA meeting.

FOLLOW-UP REMARKS:

NOTICE OF A REGULAR MEETING
OF
THE FRIEDMAN MEMORIAL AIRPORT AUTHORITY

*PLEASE TAKE NOTICE that a regular meeting of the Friedman Memorial Airport Authority shall be held Tuesday, June 3, 2014 at 5:30 p.m. at the **Blaine County Courthouse Annex Meeting Room**, Hailey, Idaho. The proposed agenda for the meeting is as follows:*

AGENDA
June 3, 2014

I. APPROVE AGENDA

II. PUBLIC COMMENT (10 Minutes Allotted)

III. APPROVE FRIEDMAN MEMORIAL AIRPORT AUTHORITY MEETING MINUTES OF:
- A. May 6, 2014 Regular Meeting – Attachment #1 — ACTION

IV. REPORTS
- A. Chairman Report — DISCUSSION
- B. Blaine County Report — DISCUSSION
- C. City of Hailey Report — DISCUSSION
- D. Airport Manager Report — DISCUSSION
- E. Communication Director Report — DISCUSSION

V. AIRPORT STAFF BRIEF (5 Minutes Allotted)
- A. Noise Complaints
- B. Parking Lot Update
- C. Profit & Loss, ATCT Traffic Operations Coun4t and Enplanement Data – Attachments #2 - #4
- D. Review Correspondence – Attachment #5
- E. Airport Commercial Flight Interruptions
- F. Master Plan Scope Of Work

VI. UNFINISHED BUSINESS
- A. Airport Solutions
  - 1. Existing Site
    - a. Plan to Meet 2015 Congressional Safety Area Requirement
      - i. Formulation — DISCUSS/DIRECT
      - ii. Project 1 Relocate Hangar Taxilane/Overlay Apron/Security Fence Improvements — DISCUSS/DIRECT
      - iii. Project 2 Relocate/Extend Taxiway B and Runway Safety Area Grading — DISCUSS/DIRECT
      - iv. Project 3 Terminal Reconfiguration — DISCUSS/DIRECT
      - v. Project 4 Airport Operations Building — DISCUSS/DIRECT
      - vi. Project 5 Terminal Apron Reconstruction/Site Preparations — DISCUSS/DIRECT
      - vii. Facility Acquisitions — DISCUSS/DIRECT
    - b. Retain/Improve/Develop Air Service
      - i. Fly Sun Valley Alliance Update – Attachments #6, #7
      - ii. Air Passenger Survey Update — DISCUSS/DIRECT

VII. NEW BUSINESS
- A. FY 15 'Draft Budget – Attachments #8, #9 — DISCUSS/DIRECT
- B. FY 15 'Draft Rates and Charges – Attachment #10 — DISCUSS/DIRECT

VIII. PUBLIC COMMENT

IX. EXECUTIVE SESSION – I.C. §67- 2345

X. ADJOURNMENT

FRIEDMAN MEMORIAL AIRPORT AUTHORITY MEETINGS ARE OPEN TO ALL INTERESTED PARTIES. SHOULD YOU DESIRE TO ATTEND A BOARD MEETING AND NEED A REASONABLE ACCOMMODATION TO DO SO, PLEASE CONTACT THE AIRPORT MANAGER'S OFFICE AT LEAST ONE WEEK IN ADVANCE BY CALLING 788-4956 OR WRITING TO 1616 AIRPORT CIRCLE, HAILEY, IDAHO 83333.

III. APPROVE FRIEDMAN MEMORIAL AIRPORT AUTHORITY MEETING MINUTES

A. **May 6, 2014 Regular Meeting – Attachment #1**

BOARD ACTION: 1. Action

IV. REPORTS

A. **Chairman Report**

This item is on the agenda to permit a Chairman report if appropriate.

BOARD ACTION: 1. Discussion

B. **Blaine County Report**

This item is on the agenda to permit a County report if appropriate.

BOARD ACTION: 1. Discussion

C. **City of Hailey Report**

This item is on the agenda to permit a City report if appropriate.

BOARD ACTION: 1. Discussion

D. **Airport Manager Report**

This item is on the agenda to permit an Airport Manager report if appropriate.

BOARD ACTION: 1. Discussion

E. **Communication Director Report**

This item is on the agenda to permit a Communication Director report if appropriate.

BOARD ACTION: 1. Discussion

V. AIRPORT STAFF BRIEF (5 Minutes Allotted)

A. **Noise Complaints: No Noise Complaints in May**

B. **Parking Lot Update**

The Car Park Gross/Net Revenues

Month	FY 2012 Gross	FY 2012 Net	FY 2013 Gross	FY 2013 Net	FY 2014 Gross	FY 2014 Net
April	$12,035.00	$4,550.00	$14,336.00	$5,243.14	$16,457.00	$6,748.00

C. Profit & Loss, ATCT Traffic Operations Count and Enplanement Data - Attachments #2 - #4

Attachment #2 is Friedman Memorial Airport Profit & Loss Budget vs. Actual. Attachment #3 is 2001 - 2014 ATCT Traffic Operations data comparison by month. Attachment #4 is 2014 Enplanement, Deplanement and Seat Occupancy data. The following revenue and expense analysis is provided for Board information and review:

	March 2013/2014	
Total Non-Federal Revenue	March, 2014	$189,799.26
Total Non-Federal Revenue	March, 2013	$127,664.95
Total Non-Federal Revenue	FY '14 thru March	$1,100,178.99
Total Non-Federal Revenue	FY '13 thru March	$1,030,873.04
Total Non-Federal Expenses	March, 2014	$142,539.60
Total Non-Federal Expenses	March, 2013	$198,706.73
Total Non-Federal Expenses	FY '14 thru March	$1,143,679.53
Total Non-Federal Expenses	FY '13 thru March	$1,068,625.24
Net Income to include Federal Programs	FY '14 thru March	$-335,372.45
Net Income to include Federal Programs	FY '13 thru March	$-290,877.75

D. Review Correspondence - Attachment #5

Attachment #5 is information included for Board review.

E. Airport Commercial Flight Interruptions

	May, 2014	
Airline	**Flight Cancellations**	**Flight Diversions**
Horizon Air	N/A	N/A
Delta	0	0
United Express	N/A	N/A

F. Master Plan Scope Of Work

The Board approved the Master Plan Scope of Work during the April meeting. Staff is working thru an Independent Fee Estimate (IFE) and Fee Negotiation Process. Staff has received a fee estimate from Mead & Hunt and issued Notice to Proceed to RS&H the firm selected by Staff to develop the IFE. The original goal was to discuss the IFE process and outcome with the Board during this meeting but continued Board discussion and input will be more appropriate during the July meeting.

VI. UNFINISHED BUSINESS

A. Airport Solutions

1. Existing Site

a. Plan to Meet 2015 Congressional Safety Area Requirement

i. Formulation

The consultant team is continuing assembly of documentation for the formulation project. Due to the size of the document, it is not included in the packet. Copies of the draft will be provided to the Board at the meeting.

BOARD ACTION: 1. Discuss/Direct

ii. Project 1 Relocate Hangar Taxi Lane/Overlay Apron/Security Fence Improvements

Work on this project is progressing well. In addition to the AIP work included in the contract, the contractor is completing paving work on behalf of and contracted by the hangar associations in this area. The AIP portions of the project are scheduled to be completed by May 31. Work for the hangar associations may extend beyond this date, but there should be no adverse impact to hangar owners. (Taxiway B accessing this area is not scheduled to be open until approximately June 5.

BOARD ACTION: 1. Discuss/Direct

iii. Project 2 Relocate/Extend Taxiway B and Runway Safety Area Grading

Project 2 has gone very well to this point. Phase 1 was completed on time and the runway opened as scheduled at noon on May 22. Phase 2 continues and is scheduled for completion on June 5. Phase 3 will immediately follow, with access to Atlantic Aviation anticipated by June 11. The project is on schedule and on budget.

BOARD ACTION: 1. Discuss/Direct

iv. Project 3 Terminal Reconfiguration

The design review package for this project and Project 4 was submitted to the City of Hailey on May 2. Following this submission, several meetings were held with City Staff to discuss the project. Based on these discussions, some revisions to the plans were made in preparation for the June 9 hearing. Additionally, a site visit was held with Hailey Planning and Zoning on May 27, to walk the site and discuss the project.

Work on the design continues. Members of the architectural team will attend the meeting to answer any questions the Board may have.

BOARD ACTION: 1. Discuss/Direct

v. Project 4 Airport Operations Building

The status for Project 4 is identical to Project 3 – work continues on design,

with a focus on the design review process. Members of the Project 4 design team will also attend the meeting.

BOARD ACTION: 1. Discuss/Direct

vi. **Project 5 Terminal Apron Reconstruction/Site Preparation**

Work on the design of Project 5 continues. The original goal was to bid the project beginning in early June. This may need to be delayed until mid-June, due to construction project demands. An update on the design and the project schedule will be provided at the meeting.

BOARD ACTION: 1. Discuss/Direct

vii. **Facility Acquisitions**

Final appraisals and review appraisals have been received and are in agreement. Offer letters were prepared by legal counsel and staff and delivered to hangar owners. Four hangar owners have accepted the airport's offer. One hangar owner has until June 15th to respond. The goal is to close on all hangar acquisitions by June 30th or shortly thereafter. Thus far two tenants are planning to rebuild hangars and two are not. Discussions are ongoing with the USFS regarding their future needs.

BOARD ACTION: 1. Discuss/Direct

b. Retain/Improve/Develop Air Service

i. Fly Sun Valley Alliance Update – Attachments #6, #7

Attachment #6 is the April 17, 2014 Fly Sun Valley Alliance Meeting Minutes. Attachment #7 is the May 15, 2014 Fly Sun Valley Alliance Meeting Agenda. This item is on the agenda to permit a Fly Sun Valley Alliance report if appropriate.

ii. Air Passenger Survey Update

Ms. Carol Waller, Fly Sun Valley Alliance will give the Board a report on the recent air passenger survey.

BOARD ACTION: 1. Discuss/Direct

VII. NEW BUSINESS

A. FY '15 Draft Budget – Attachments #8, #9

Attached for your review are the preliminary FY '15 Budget Worksheets. The Friedman Memorial Airport Authority Rates and Charges Policy states "Each year, during the Friedman Memorial Airport Authority budget process, which takes place from June through September, rates, fees, tolls or charges for the use or availability of the facilities of the Airport shall be established. In order to establish the appropriate amounts for said rates, fees, tolls and charges, the Authority shall first determine, as closely as possible, the specific causes of the operating costs. All revenues generated by the Airport and any local taxes on aviation fuel will be expended by the Authority for the capital or operating costs of the Airport." In accordance with the policy, Staff has been working on a preliminary FY '15 Draft Budget. More Staff analysis is yet to take place on the budget. Again, these budget worksheets are preliminary

and will require more assessment/fine tuning. A finished document/proposed budget will be presented for Board consideration in the July packet.

Staff has completed analysis of required operating and capitalization expenses for FY '15. This analysis has integrated all available research, information and responsible projection regarding next year's "cost-to-do-business", including specific causes of expense. This budget includes a projection of revenue and expense relative to the continuity of ongoing operation of FMAA. It is important to recall that the FY '14 Budget assumed an extremely restrained approach to Rates & Charges adjustments, in anticipation of a clearer understanding of revenue and expense projections for FMA as a result of the completed Runway Safety Area Improvement Project in FY '15. That said, Staff now has that clearer picture of the Airport's direction and tasks in the coming year, as well as the next several years and we are confident that our collective experience and grasp of the legitimate financial requirements and capabilities of FMA have led us to a product that the Board can trust and support. The Preliminary FY '15 Budget Worksheets do not presently include revenue based on any potential Rates and Charges adjustments.

Simply stated, the FMAA Budget must always reflect a balance of revenue and expense. Rates & Charges are the primary mechanism for accomplishing that balance. In the FY '15 Budget however, there are some unique circumstances that warrant explanation.

The Runway Safety Area Improvement Project, after federal (AIP Grant) funding matched with local share funding (reimbursed through an approved PFC application), still requires approximately 2.1 million dollars of local funds (drawn from FMA Operational Reserves) which are not AIP eligible and not scheduled for reimbursement through PFC. The Airport is however, fully entitled to recoup these expenditures/Operational Reserves depletion. That recovery must be conducted through the appropriate adjustment of Rates & Charges. Examples of expenditures that are not funded through AIP or PFC reimbursement include non-eligible aspects of: the new Maintenance Facility, Runway Improvements, the Terminal and the Terminal Parking Lot. These areas alone reflect that approximate 2.1 million dollar expenditure, drawn from FMA Operational Reserves and reimbursable only through Rates & Charges adjustments.

The approach Staff presents toward the goal of recouping that approximate 2.1 million dollar total expenditure previously addressed, is through a carefully calculated Rates & Charges mechanism that represents the maximum level of restraint possible and minimizes the financial burden of fee increase on airport users. Simply, this mechanism reflects a 20 year schedule for reimbursing FMA Operational Reserves, not unlike a depreciation schedule. This proposed approach would result in approximately $150K in reimbursement in FY '15, with automatic CPI increases annually for the following 19 years.

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The FY '15 Budget will provide the Board the ability to operate FMA and meet all of the coming year's needs. The proposed Budget will meet FMA needs regarding Safety Area Implementation Projects as well. The Budget proposes a 2.5% CPI adjustment in employee compensation, as well as a 3% maximum cap for salary adjustment predicated on meritorious performance over the course of the year.

Attachment #8 is the Preliminary FY '15 Budget Worksheet (Operational). As you know, this worksheet is not the proposed budget; it is simply a tool to begin discussion of operational revenue and expense data without the distraction of federal grants.

Attachment #9 is the Preliminary FY '15 Budget Worksheet (Combined). The combined work sheet is the draft proposed budget for FY '15. It includes all anticipated federal and state funding applicable to pending Airport projects.

The Board can anticipate presentation of this budget, with any changes or refinements as may be deemed necessary, in the July Board Brief. After the July FMAA meeting, copies of the proposed budget and proposed rates and charges will be available at the Airport Manager's Office for public review. The Board can anticipate an agenda item in the July FMAA meeting for the purpose of review and discussion of a proposed FY '15 Budget. As per the Joint Powers Agreement, the Board is required to hold a public hearing on or before the first Tuesday in August and to approve the budget on or before August 15th.

BOARD ACTION: 1. Provide guidance related to the FY '15 Budget

B. FY '15 Draft Rates and Charges – Attachment #10

Attachment #10 is the proposed Rates & Charges schedule. As the Board can see, certain Rates & Charges have been only marginally adjusted last year. The rationale for a "restrained approach" to these adjustments was that while it was imperative some conservative adjustments be made immediately, the fact was that FY '14 was the year in which the Runways Safety Area Improvement project would be developed and would also reveal clear and objective projections for efficiently and responsibly operating FMA into the short and long term future. Board members may recall that during the FY '14 Budget Process, Staff demonstrated that the existing Rates & Charges schedule was deficient in many areas and no longer reflecting current market rates/trends, based on a comparison of the prevailing rates and charges at demographically similar resort and regional airports. In short, the FMA Rates & Charges were slightly adjusted in certain areas, with the caveat that significant review and adjustment would be necessary for FY '15.

By implementing adjusted Rates & Charges, the FY '15 Budget will provide the Board the ability to operate FMA and meet all of the coming year's needs. The proposed Budget will meet FMA needs resulting from Runway Safety Area Implementation Projects as well. Some of those needs will include increased building maintenance and utilities obligations for the Terminal as well as potentially significant snow removal obligations on the airfield as well as the Terminal Parking Lot.

In June, Staff will continue developing recommendations for an adjusted Rates & Charges schedule to propose for review/discussion by the Finance Committee. Specific areas/rates being reviewed by Staff at this time include, Terminal Auto Parking, Terminal Advertising, Landing Fees, Overnight Transient Aircraft Parking, Fuel Flowage, Ground Transportation Provider and Security/Badging. As previously stated, Staff will seek guidance from the Finance Committee and Board regarding Rates & Charges adjustments. The Board can anticipate an agenda item in the July FMAA meeting for review and discussion of proposed Rates & Charges schedule adjustments.

BOARD ACTION: 1. Provide guidance related to Rates & Charges adjustments.

VIII. PUBLIC COMMENT

IX. EXECUTIVE SESSION - I.C. §67- 2345

X. ADJOURNMENT

AGENDA ITEM SUMMARY

DATE: 06/2/2014 **DEPARTMENT:** PW **DEPT. HEAD SIGNATURE:** __MP___

SUBJECT: Resolution 2014-52 and Agreement with Forsgren Associates for 3rd Party engineering review of HDR's biosolids facility design at 90% completion.

AUTHORITY: ☐ ID Code _____ ☐ IAR _____ ☐ City Ordinance/Code _____
(IFAPPLICABLE)

BACKGROUND/SUMMARY OF ALTERNATIVES CONSIDERED:
The city has used 3rd party review and independent oversight on a number of projects in the past – the Welcome Center and Woodside Blvd. are two examples. The use of independent contractors to review design, engineering and construction phases has proven beneficial and cost effective on these projects; identifying improvements, cost savings opportunities and problems prior to them requiring costly solutions.

Staff believes a 3rd party review from an independent firm would be beneficial for the following reasons:

1. It may identify whether there are other design options that may be less expensive, which still meet the city's objectives.
2. It may save money. It will help insure the design meets the city's needs and reduces the opportunity for change orders and other possible design problems to arise during construction phase and after project completion.
3. It may inform the city as to whether pre-procurement could be done in-house using existing staff, city engineer and attorney.

Initially, we feel approximately 20 hours of review is needed, but depending on the findings, additional hours may need to be added to the scope. The cost is estimated around $3000-$5000. Given the significant engineering and construction cost of this project, the opportunity for savings if it is found feasible to conduct pre-procurement and qualify contractors in-house, and the potential benefits listed above, staff feels this cost warranted.

Last month the city requested estimates and qualification information and received responses from three different firms. Below is a summary of our review of proposals.

Review Team: Heather Dawson, Mariel Platt, Ned Williamson

Ranking: The three firms who responded were scored 1 through 3. The firm receiving the highest score was determined by the review team to be best firm to provide the 3rd party review of HDR's engineering design at 90% completion for the Biosolids Treatment Facility.

Criteria	Keller	Forsgren	Bowen Collins
Cost	1	2	3
Experience/Expertise with 3rd party review of similar projects	2	3	1

Approach	2	3	1
TOTAL	**5**	**7**	**5**

Highest Scoring Firm: Forsgren and Associates Inc.

The attached agreement with Forsgren Associates would provide a review the city's biosolids treatment facility plans that HDR has completed to 90%.

ACKNOWLEDGEMENT BY OTHER AFFECTED CITY DEPARTMENTS: (IFAPPLICABLE)

_X__	City Attorney	___	Clerk / Finance Director	___	Engineer	___	Building
___	Library	___	Planning	___	Fire Dept.	___	_____
___	Safety Committee	___	P & Z Commission	___	Police	___	_____
___	Streets	_X_	Public Works, Parks	___	Mayor	___	_____

RECOMMENDATION FROM APPLICABLE DEPARTMENT HEAD:
Make a motion to adopt Resolution 2014-52 authorizing the Mayor to sign the Agreement.

ACTION OF THE CITY COUNCIL:
Date _____

City Clerk _____

FOLLOW-UP:
*Ord./Res./Agrmt./Order Originals: Record
Copies (all info.):
Instrument # _____

*Additional/Exceptional Originals to: _____
Copies (AIS only)

CITY OF HAILEY
RESOLUTION NO. 2014-52

RESOLUTION OF THE CITY COUNCIL FOR THE CITY OF HAILEY AUTHORIZING THE EXECUTION OF CONTRACT FOR THIRD PARTY ENGINEERING REVIEW OF HDR'S BIOSOLIDS FACILITY DESIGN

WHEREAS, the City of Hailey desires to enter into an agreement with Forsgren Associates who will provide 3rd party review of the engineering and design for the planned biosolids facility, for the City of Hailey.

WHEREAS, the City of Hailey and Forsgren Associates have agreed to the terms and conditions of the contract, a copy of which is attached hereto.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF HAILEY, IDAHO, that the City of Hailey approves the contract between the City of Hailey and Forsgren Associates and that the Mayor is authorized to execute the attached Agreement,

Passed this 2nd day of June, 2014.

City of Hailey

_____

Fritz X. Haemmerle, Mayor

ATTEST:

_____

Mary Cone, City Clerk

FORSGREN Associates Inc.

May 8, 2014

Mariel Platt, AICP LEED® AP
Public Works Operations Director
115 Main Street South, Suite H
Hailey, ID 83333

RE: Request for Proposal to Review Biosolid Treatment Facility Plans

Dear Ms. Platt:

Forsgren recently completed a 3rd party value analysis on a design for the Soda Springs Wastewater Treatment Facility wherein we identified opportunities for value engineering, strategies for cost reduction, and circumstances that potentially warranted cost postponement. We elected to utilize this approach to emphasize the difference between value engineering and cost reduction. Inherent in the concept of value engineering is an end product with the same functionality and reliability, achieved with a lower cost, using a different approach for construction, process, or materials. Cost reduction strategies achieve the intended purpose, but with an acceptable difference in functionality and reliability. For example, a carbon steel product achieves the same functionality as a stainless steel product but does not have the same resistance to corrosion and thus typically has a shorter life. Cost postponement strategies are implemented to meet current budget constraints by deferring certain components of a project until a later date or adjusting the project sizing to meet current demand, generally with the understanding that total project costs may increase due to reduction in economy of scale. Our intent would be to utilize a similar process to evaluate the Biosolids Treatment Facility Plans prepared for the City of Hailey.

As a company, we have designed several biosolids treatment facilities throughout Idaho and are comfortable with the processes and technologies used in the wastewater industry to dewater, dry, transport, and stabilize wastewater biosolids. Some of the biosolids facilities we have designed include those located at the EIRWWA Oxbow Water Reclamation Facility (BDP belt press), the Burley Wastewater Treatment Plan (BDP belt press and Fenton dryer), and the Soda Springs Wastewater Treatment Plant (solar drying beds). In addition, our engineers have operated solids dewatering facilities for the Oxbow facility (belt press) and the 91st Avenue Wastewater Treatment Plant in Phoenix, AZ (centrifuges). Further, they have also served as the technical specialist for the belt press technical specification for a national engineering company. The City of Hailey can benefit from the depth and breadth of that biosolids design experience.

With respect to value analysis, our engineers have participated and performed 3rd party reviews of engineering design ranging from informal independent review of internal designs to formal two-week, on-site value engineering (VE) studies involving several recognized experts that adhere to a rigid industry defined process for analysis and reporting. From that experience we have developed an efficient process that captures the essence of value engineering without the excessive cost of a formal VE study that evaluates a project by dividing the observations into the three categories described in the first paragraph along with an analysis of the process impacts and financial implications.

As requested, our assumption entails 20 hours of effort for a wastewater engineer. Forsgren Associates has a variety of wastewater engineers with varying levels of experience and expertise that could competently perform the requested services. Our current billing rates for engineering services

corresponding to the labor class codes (experience level) are presented below beginning with an Engineer in Training at Engineer I and a senior executive at Engineer VI.

- Engineer I - $85/hour
- Engineer II - $105/hour
- Engineer III – 125/hour
- Engineer IV – 145/hour
- Engineer V - $180/hour
- Engineer VI - $210/hour

We presume that after consultation with the City we will have a greater understanding of the project objectives, the City will have a better appreciation for our capability as a company and as individual engineers, and that collectively we can determine the appropriate engineer to assign to the project such that the City will realize their objectives

As requested and to familiarize you with some of the engineers that could perform the analysis, I have attached a summary of the Soda Springs Value Analysis and Wastewater Treatment Plant project along with resumes for several engineers highlighting their wastewater experience including that for biosolids treatment.

Sincerely,

Brent E. "Husk" Crowther, P.E. PMP, CFM
Regional Manager
Forsgren Associates, Inc.

Attach: Project Description, Soda Springs Value Analysis and Wastewater Treatment Plant
Resumes, Rick Noll, P.E.; Brent Crowther, P.E.; Dave Noel, P.E.; Justin Beard, P.E.

Soda Springs Wastewater Treatment Plant

Project Summary

- Secondary Process – STM Aerotor
- Ammonia and Phosphorous Removal
- Design Capacity – 1.5 MGD

Engineer's Est.	$10,400,000
Bid Price	$8,700,000
Construction (In Process)	$8,700,000

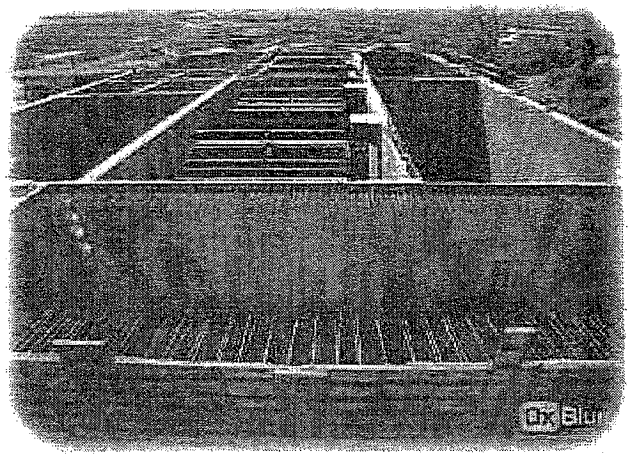
Value Analysis: In 2008, the City of Soda Springs hired a consultant other than Forsgren and completed a Wastewater Facility Planning Study (FPS) and designed upgrades to its existing wastewater treatment plant. However, bids received for construction of the plant came in at 193% of the engineer's cost estimate. Forsgren Associates was hired to help the City out of this difficult position. Forsgren Associates prepared a Value Analysis (VA) report which reviewed the assumptions, conclusions, and recommendations of the original FPS and design. This analysis identified the essential project objectives and alternative ways to achieve them, then selected the best alternatives and developed them into workable recommendations for project improvements at an lower cost overall. The headworks building with screening facilities is a good example of the VA recommendations being used to achieve project objectives while reducing overall project cost. Through evaluating alternate equipment alternatives for screening and grit removal and focusing on equipment that would result in a compact installation, Forsgren reduced the footprint of the headworks process which allowed extending the existing thickener building rather than constructing a new building. This recommendation resulted in a savings of $0.5M without compromising the project objective for more effective preliminary treatment with reduced time and effort from the operators.

Technical Memorandum and Preliminary Engineering Reports: A Technical Memorandum was prepared by Forsgren Associates to evaluate the several advanced wastewater treatment alternatives presented in the FPS for secondary treatment to provide the nutrient removal of nitrogen and phosphorus anticipated in the City's new NPDES permit. This evaluation included a review of economics, performance, space requirements, expansion capabilities, and other factors that would impact the final design for secondary and tertiary treatment and, subsequently, the complete treatment process for the Soda Springs WWTP. Forsgren Associates then prepared the Preliminary Engineering Report to describe proposed project capacity and design requirements, project components, project component sizing, facility layouts, and facility construction phasing of the selected treatment processes.

Design and Construction: Following acceptance by the City and DEQ of the recommended improvements, Forsgren Associates was retained to provide design and construction administration services for the recommended facilities. The design included a new headworks facility, secondary treatment process and clarifiers, tertiary filtrations, UV disinfection, and multiple lift stations. Construction is scheduled to be completed in 2013. The new design reduced the cost of the treatment system by $2.5M.

Preliminary Treatment (Headworks): Using the headworks as an example of design effort, Forsgren worked closely with the screen and grit equipment manufactures to facilitate custom modifications to standard equipment made to fit in the minimal space available. The new Headworks facility at the Soda Springs WWTP includes a Lakeside Raptor rotating drum screen and a manual bar screen in a bypass

channel. The screens each have a capacity of 1.5 MGD. The Lakeside rotating drum screen was chosen in part because it combines screening, washing, compaction, and conveyance of screenings in one compact unit. This was important because the Headworks Building had to be constructed between several existing buildings without interrupting existing treatment processes. The screen at Soda Springs includes continuous bagging of screenings to control odors in the Headworks building.



Biological Nutrient Removal: The secondary treatment process selected was the STM Aerotor technology. This is the first installation of this process in the State of Idaho. This equipment was pre-selected by the Owner using documents prepared by the Engineer that considered the life cycle costs in addition to initial capital cost. The STM-Aerotor combines activated sludge and fixed film in a compact biological treatment system that requires a smaller footprint and lower power input. The media of the STM-Aerotor provides both the fixed film surface area and the vehicle for coarse bubble aeration. The STM-Aerotor design allows for efficient aeration without the need for diffusers, air piping, control valves, diffused aeration blowers, or supplementary mixers. The biological system is designed to reduce ammonia and nitrogen to levels required in the NPDES permit and to provide the first stage of phosphorus reduction.

Tertiary Filtration for Phosphorus Removal: The City's anticipated NPDES will require phosphorus to be reduced below levels that can be achieved using biological treatment. Forsgren designed a tertiary filtration system to following the secondary clarifiers to reduce phosphorus to the required levels. These moving-bed sand filters utilize chemical precipitation with alum and filtration with sand filters.

Ultraviolet Disinfection: The ultraviolet disinfection process utilizes Enaqua non-contact disinfection systems. Unlike traditional UV systems which have UV lamps submerged in a channel, surrounded by fragile and fouling-prone quartz sleeves, the UV units utilized for this project flow water through the inside of tubes, with the lamps on the outside so that they are always dry. These dry UV lamps surround the water conveying tubes, such that each tube gets exposed to ultraviolet light from all sides, making the system more efficient.

Richard M. Noll, P.E.
Principal Project Manager

Education

- B.S. General Science, University of Iowa
- M.S. Civil / Environmental Engineering, University of Iowa

Registration

Professional Engineer

- Idaho #6492
- Utah #170276
- New Mexico #11359

Related Expertise

- Project manager
- Municipal engineering
- Integrated infrastructure planning and design
- Innovative financial packages
- Wastewater reuse
- Integrated water management

Sewage Collection and Treatment:

WWTP Expansion, Coalinga, California

Wastewater Treatment Plan, Kamas, Utah

Wastewater Collection and Transport System, Smithfield Utah

Reuse Project with Existing 3.9 MG Lagoon, Snowbasin, Utah

Tooele Chemical Weapons Disposal Facilities Chemical Stockpile Disposal Program, Tooele, Utah

Mr. Noll is President of Forsgren Associates and offers nearly 30 years of experience in civil and environmental engineering with special emphasis on all aspects of water conveyance including domestic, irrigation, sanitary wastewater, and stormwater. His experience includes the design of piping and conveyance facilities, pumping plants, detention basins and lagoons, wastewater and culinary water treatment facilities, master planning studies, and related activities. He has designed and managed large civil infrastructure projects across the western US and Mexico and is adept at resolving often disparate challenges associated with roads, parking, railroads, natural gas, electric power, and water utilities.

Mr. Noll has developed groundwater resources in various locations in the Intermountain West and is an assertive proponent of the utilization of treated effluent for water reuse; he managed the first unrestricted wastewater reuse project in the State of Utah (in Tooele County) as he did in two other states. His leadership in reuse is proving to be of significant value to cities with limited water supplies and ongoing growth.

PRIOR RELEVANT EXPERIENCE

Wastewater Treatment Plant, City of Tooele, Utah. Environmental Engineer. Planned, designed, and managed construction, start-up, operations and performance certification for new 2.25 MGD Wastewater Treatment Facility. Led conceptual planning and final design of new Oxidation Ditch treatment facility with advanced treatment, biosolids dewatering and beneficial use, disinfection, and effluent distribution facilities with complete reuse of all treated wastewater. Also managed design of ten mile so of interceptor sewer extensions, three waterline extensions, and secondary water utility system.

Innovative Multi-use Wastewater Treatment and Reuse Plant, Grants, New Mexico. Project Manager. Managed all aspects of $15 million project including land use planning and watershed management for 25 square miles, in-stream flood control structures, constructed wetlands, secondary wastewater treatment plant, full effluent reuse facilities, eighteen hole golf course, 90 acres of open water in sixteen lakes and 300 acre alfalfa farm.

Wastewater treatment, disposal and reuse, Elk Meadows Resort. Project Manager. Lead design engineer for an innovative project that included a compact biomembrane treatment system, rapid infiltrating gallery disposal option, full Type I unrestricted reuse alternative including snow making, landscape irrigation, golf course irrigation and dual-plumbed resort buildings. Initial flow capacity of 400,000 gpd. Site limitations required an imaginative approach to siting and designing the building, which includes SnoCat storage and maintenance and a structure situated on the roof of the treatment plant.

Regional Wastewater Treatment and Reuse System, Eastern Idaho Regional Wastewater Authority. Project Manager. Led conceptual development of $55 Million project that incorporates seven separate political entities across a large geographic area. Developed rate systems and structures for all seven entities and the regional authority which were essential to moving the project forward. Project facilities include regional interceptors, lift stations, a new wastewater treatment plant, and reuse utility.

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Richard M. Noll, P.E.
Principal Project Manager

Wastewater Treatment Facilities and Reuse Utility, City of Burley, Idaho. Project Manager. Managed all aspects of new facility and led development of user fee structure and financing activities which were crucial to project authorization. Included a 5.0 to 7.5 MGD wastewater treatment plant, reuse facilities, and green belt enhancements.

Biomembrane Wastewater Treatment and Reuse, North Fork Special Service District, Utah. Project Manager. Managed all aspects of state of the art project located in high profile, environmentally sensitive North Fork of the Provo River Canyon, which includes the famed Sundance Resort.

Municipal and Industrial Wastewater Treatment, Rupert, Idaho. Project Manager. Managed all aspects of new reuse utility featuring unique funding, rate structure, impact fee and user fee systems. The $16 million project included industrial pretreatment, treatment, transmission, storage and reuse.

Facilities Planning Studies, North Tooele County, Utah. Project Manager. Coordinated and authored study for seven communities. Project included planning, development, design and construction requirement for wastewater treatment and land application facilities. Additional elements included wetlands impacts, water reuse for golf course irrigation, golf course expansion and new construction, irrigation requirements, effluent limitations and land use restrictions.

Wastewater and Stormwater Master Planning, Hill Air Force Base, Utah. Project Manager. Managed evaluation, master planning and preliminary design for sanitary, industrial, and stormwater collection systems.

Wastewater Treatment, Grand Targhee Resort: Quality Assurance / Quality Control Manager for a biomembrane wastewater treatment and disposal in an environmentally sensitive area. Project elements include advanced secondary treatment biosolids handling and disposal and effluent disinfection and disposal. Initial plan capacity is 125,000 gpd.

Wastewater Treatment Plant, Rexburg, Idaho: Project Engineer for design of a new 2.5 million gallon per day Oxidation Ditch Wastewater Treatment Plant. The new facilities include two oxidation ditches, external clarifiers, headworks, sludge storage, sludge handling, sludge disposal and disinfection facilities.

Wastewater Treatment Plant Upgrade, Heyburn, Idaho: Project Engineer for upgrade and expansion of the existing wastewater treatment plant. The new facilities include two oxidation ditches, external clarifiers, storage facilities and sludge handling facilities.

Facilities Planning Study Gooding, Idaho: Design and construction review for a major plant modification to existing Oxidation Ditch WWTP. Work included new plant headworks, solids pumping, aerobic digester modifications, dechlorination, sludge drying beds, and revisions to seven collection system lift stations.

Brent E. Crowther, P.E., PMP

Division Manager

Education

- M.B.A.-Strategic Planning & Finance, University of Utah.
- M.S.-Civil & Environmental Engineering, Utah State University.
- B.S.-Mechanical and Aerospace Engineering, Utah State University.

Registration

Professional Engineer

- Idaho #9500
- Utah #186585
- Arizona #31984
- Montana #17385
- New Mexico #14356
- Nevada #14077
- Wyoming #11105

Professional Endeavors

Forsgren Associates
Division Manager

HDR Engineering, Inc.
Project Manager

Sunrise Engineering
Operations Manager

Bingham Engineering
Project Engineer

Institute of Natural Systems Engineering, Utah State University,
Environmental Engineer

Monsanto Chemical Company Project
Engineer

Thiokol, Strategic Division
Engineering Partner

Relevant Publications

Technical Editor - Upgrading and Retrofitting Water and Wastewater Treatment Plants, MOP 28, Water Environment Federation, 2005

Technical Editor – Design of Municipal Wastewater Treatment Plants, MOP 8, Water Environment Federation, 2009

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Mr. Crowther has over 20 years experience designing and managing engineering projects including wastewater systems. He has designed projects ranging from international wastewater treatment projects with multiple stakeholders to private on-site treatment systems. Brent has designed collection systems, lift stations, force mains, lagoon systems, advanced wastewater treatment plants, land application sites, and reuse projects. Brent was selected by the Water Environment Federation (WEF) as the1998 Travel Fellowship recipient for two weeks of specialized study in wastewater systems at the Water Research Centre in Swindon, England. Brent has also served as a technical editor for two Manuals of Practice for WEF on wastewater planning and design.

PRIOR RELEVANT EXPERIENCE

Eastern Idaho Regional Wastewater System (EIRWWA), Shelley, Idaho. Program manager for the EIRWWA wastewater system, a regional effort encompassing over 50 square miles of collection area and involving five cities, two counties, a district, and private industry. Mr. Crowther was the program manager and primary consultant from the initial planning stage through organization of a new political entity and establishment of the new sewer enterprise. Mr. Crowther envisioned a program that consisted of the Facilities Planning Study, preliminary design, design and construction of 17 miles of interceptor pipe ranging from 24-inch to 48-inch in diameter, several thousand feet of collection system, three separate lift stations, several borings including a 72-inch bore beneath Hwy 91 and the Union Pacific Railroad, and two 2-MG phases of an advanced wastewater treatment plant with nutrient removal capability. In addition, Mr. Crowther developed the funding package, assisted two cities with bonds and judicial confirmation hearings, prepared numerous applications for grants and funding including congressional appropriation that yielded grant money from five separate agencies resulting in over $12M in grant on $45M in projects with another $15M pending. Further, he negotiated a 1.25% reduction in interest rate from DEQ on the loan portion. The essence of Mr. Crowther's efforts on this project is a sustained effort over several years to conceive, plan, organize, manage, design, and oversee construction of a new regional wastewater system.

Nogales International WWTP Upgrade, Nogales, Arizona. Project manager for the upgrade for the existing 17.2-mgd facility to meet NPDES and Aquifer Protection Permit discharge limits and the expansion to 22 MGD. The existing plant serves the City of Nogales, Arizona and surrounding areas as well as handles flows from an interceptor line originating in Nogales, Sonora, Mexico. The upgrades included additional grit detritors and screen rehabilitation in the headworks along with new aerated grease removal unit and a retrofit of the UV disinfection basins. The expansion converted completely mixed lagoons to a Kruger triple ditch process. The site uses three triple ditch trains each having a dedicated waste activated sludge pump station. Solids handling facilities include a gravity sludge thickener, an aerobic digester, and sludge storage lagoons accompanied by appropriate pump stations.

Bullhead City, Section 10 Wastewater Treatment Plant Expansion, City of Bullhead City, Arizona. Mr. Crowther directed the production of the design drawings, secured and coordinated the subconsultants, and managed the construction of the WWTP. The Section 10 WWTP is an extended aeration, activated sludge plant employing an oxidation ditch with an anoxic zone and a three-bay bioselector as the biological reduction process. The treatment process includes preliminary treatment

Brent E. Crowther, P.E.
Division Manager

Additional Applicable Projects:

Sodium Hypochlorite Disinfection System. Rupert, Idaho

Wastewater Treatment Headworks Design, Town of Eager, Arizona

Sludge Dewatering Facility, Big Park Domestic Wastewater Improvement District, Village of Oak Creek, Arizona

Ultraviolet Disinfection Project, Big Park Domestic Wastewater Improvement District, Village of Oak Creek, Arizona

Tierra Grande Wastewater Treatment Plant Evaluation, Bullhead City, Arizona

WWTP Loading Evaluation, Salem, Utah

Neways Pretreatment & Pretreatment Ordinance, Salem, Utah

Bullhead City Section 18 WWTP Evaluation, Bullhead City, AZ

Wastewater Treatment Plant Expansion and Upgrade and Collection System Additions, Camp Verde, Arizona

Wastewater Treatment Plant Upgrades, Green River, Utah

Mack's Inn Lagoon Liner Replacement, Island Park, Idaho

Eagle Farms Land Application Evaluation, Idaho Falls, Idaho

Wastewater Treatment Plant Replacement, Soda Springs, Idaho

Wastewater Treatment Plant, Cokeville, Wyoming

Wastewater Treatment Facilities Planning Study, Garden City, Idaho

Elk Meadows Wastewater Treatment Study, Elk Meadows Ski Resort, Utah

Gold Ranch Decentralized Treatment System, Madison County, Idaho

consisting of a rotary fine screen and grit removal, odor control, onsite sodium hypochlorite generation, tertiary treatment, UV disinfection, and reuse of effluent on green belts in the City. Sludge handling consists of aerobic digestion, sludge thickening, a two-meter extended gravity zone belt press, and composting to a Class A sludge as a final process. Nutrient removal is achieved through nitrification via extended aeration and denitrification take place in the anoxic zone of the oxidation ditch. The project also includes approximately 30 miles of sewer line, over 4,200 service connections, and an equal number of septic tank abandonments. The new plant dovetails into an existing wastewater treatment plant, thereby making use of existing facilities to lower overall project cost.

Burley Wastewater Treatment Plant Upgrade, Burley, Idaho. Project manager for the solids dewatering process of the Burley Wastewater Treatment Plant Upgrade project. The plant upgrade replaces the lagoon treatment system with a mechanical wastewater treatment plant utilizing oxidation ditch aeration basins, secondary clarification and filtration. The solids dewatering process houses a belt filter press, a gravity belt press, and a thermal dryer along with appurtenant equipment in a concrete masonry block building.

Wastewater Treatment Plant, Cokeville, Wyoming. The EPA reviewed the discharge practices for the Cokeville WWTP and determined that improvements were necessary for dechlorination and for dispersing the effluent across the breadth of the river. Town officials turned to Forsgren Associates, their town engineer for over 20 years, to assist them with bringing their facility into compliance with EPA mandates. In addition, the lagoons were significantly undersized for current regulations. The project team, led by Mr. Crowther as project manager, evaluated alternatives and recommended the most cost effective approach. Based on the City's desire to receive septage and to plan for future growth, the recommended solution was for the City to design and construct a simple mechanical wastewater treatment plant.

Brent worked with the Town to secure grant and loan funding from the State Land Investment Board. The selected process technology was an integrated fixed film bioreactor, the advantage of the specific equipment package being a low power requirement and simple operation. The treatment processes designed include screening, grit removal, clarification, ultraviolet disinfection, and solids dewatering using a screw press

Wastewater Treatment Improvements, Paul, Idaho. Project manager for improvements to the Paul wastewater treatment lagoons. The improvements included expansion and permitting of the land application system, treatment lagoon improvements, and lift station rehabilitation.

Wastewater Treatment Plant Expansion and Upgrade and Collection System Additions, Camp Verde, Arizona. Served as quality control function on the design of a 1.3 MGD wastewater treatment plant expansion and collection system addition. The treatment facility includes headworks, equalization basins, influent pump station, bioselector, oxidation ditch, secondary clarifier, RAS/WAS pump station, tertiary filters, UV disinfection, and belt filter presses housed in a prefabricated metal building. The review resulted in adjustments to the structures to correct the hydraulic profile and modifications to the general layout of the unit processes.

FORSGREN Associates Inc.

Dave Noel, P.E.
Project Engineer

Education

- BS Civil Engineering, Civil Engineering, Arizona State University

Registration

Professional Engineer

- Arizona #06703
- Idaho #11838
- Wyoming #11349

Professional Endeavors

Forsgren Associates
Project Manager

HDR Engineering, Inc.
Project Engineer

Additional Applicable Projects:

Cave Creek Road Facilities Project, Phoenix, Arizona

Lindsay and Pasadena Pump Stations, Mesa, Arizona

South Mt. Wastewater Facility Plan, Phoenix, Arizona

Eastern Idaho Regional WWTP Facility Design, Shelley, Idaho

Wastewater Utility Master Plan, Garden City, ID

Wastewater Master Plan, Iona-Bonneville Sewer District

Collection System Facilities Planning Study, Shelley, Idaho

Wastewater Facilities Planning Study, Franklin, Idaho

EIRWWA River Bend Lift Station Odor Control upgrade, Shelley Idaho

Eastern Interceptor Sewer Transmission Line, Binhgam County

Firth WWTP Emergency Response Plan, Firth, Idhao

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Mr. Noel has experience in design, construction administration, including providing "third-party" construction services, treatment plant startup, and design review/value engineering. As a design engineer, he has experience in wastewater treatment plant design, gravity sewer design, force main design, sewer lift station design, solids handling design, and reservoir rehabilitation.

PRIOR RELEVANT EXPERIENCE

Soda Springs Wastewater System Value Analysis, Soda Springs, Idaho. Lead the 3rd party review effort for Value Analysis of the completed design to upgrade the existing Soda Springs WWTP to meet nutrient removal requirements. Analysis recommended a new design to incorporate operator friendly STM aerator and Zickert clarifier equipment that ultimately reduced the construction cost by $2.5M and changed the operator certification requirement from a Level 4 to a Level 3 providing the opportunity for the City Operators to continue operating the new facilities rather than requiring the City employ and new Operator with the higher certification.

Burley Wastewater Treatment Plant Upgrade, Burley, Idaho. Project manager for the solids dewatering process of the Burley Wastewater Treatment Plant Upgrade project. The plant upgrade replaces the lagoon treatment system with a mechanical wastewater treatment plant utilizing oxidation ditch aeration basins, secondary clarification and filtration. The solids dewatering process houses a belt filter press, a gravity belt press, and a thermal dryer along with appurtenant equipment in a concrete masonry block building.

Cokeville Wastewater Treatment Plant, Cokeville, Wyoming. Project manager for the design of a new mechanical wastewater treatment facility to replace aging lagoons and comply with more stringent discharge requirements. The utilizing STM Aerotor process, secondary clarification and solids dewatering screw press.

Eastern Idaho Regional Wastewater Authority Oxbow WWTP Headworks Fine and Coarse Screens, Shelley, Idaho. Designed the preliminary treatment in the EIRWWA Oxbow WWTP. Several screen types and system were evaluated with the final section including coarse screening followed by grit removal and fine screening. The primary design consideration was to provide reliable protection for the secondary activated sludge membrane system. The coarse screening consists of a two parallel manual bar screens, and the fine screening consists of two parallel 2-mm JWC band screens with a capacity of 8 MGD. In addition a JWC grinder and compactor is provided.

Eastern Idaho Regional Wastewater Authority River Bend Lift Station Screen Upgrade Design, Shelley, Idaho. Project manager and design engineer to incorporate a 20 MGD screen to remove excessive ragging and debris from the River Bend Lift Station. Critical design considerations and equipment design modifications were required to place the screen in a very small foot print. The lift station is 30 feet deep and 9 feet wide with approximately 50 square feet of floor space available for the screen and compactor equipment combined. Project included evaluation of several

Dave Noel, P.E.

Project Engineer

Mack's Inn WWTP Upgrade, Fremont County, Idaho

Last Chance Sewer Collection, Femont County, Idaho

Spud Alley Sewer Extension, Shelley, Idaho

Flamingo Lift Station, Baggs, Wyoming

Baggs Sewer Line Extension, Baggs Wyoming

EIRWWA 48" transmission line test project, Bingham County, Idaho

EIRWWA 42" transmission line test project, Bingham County, Idaho

Grace WWTP pump station upgrade, Grace, Idaho

New Sweden Road Lift Station, Bingham County, Idaho

Overland Drive Lift Station, Bonneville County, Idaho

Springer Solids Drying Bed Design, Springer, New Mexico

screen types and manufactures with a final recommendation for sole source equipment selection and working directly with the equipment manufacturer to modify the standard design to work specifically with the available lift station space.

Eastern Idaho Regional Wastewater Treatment Facility Planning Study, Shelley, Idaho. Project manager for the EIRWT Facility Planning Study. The study is a comprehensive effort between multiple governmental entities including the cities of Shelley, Ammon, Iona, Basalt and Firth along with Bingham and Bonneville Counties. The planning effort proposes a 5.0 MGD regional wastewater treatment facility located near Shelley along with a 36" transmission line from Ammon to the treatment location. The project is the largest planning effort undertaken in Idaho with regard to the number of government entities involved.

Wastewater Treatment Plant Headworks Design, Soda Springs, Idaho. Designed the new 1.5 MGD headworks facility for the existing wastewater treatment plant. Calculated hydraulic profile of headworks process. Processes included new drum screen, vortex grit chamber, bar screen, and primary lift station.

Paul Wastewater Improvements, Paul, Idaho. Project manager for improvements to the Paul wastewater system. The improvements to the Paul wastewater system include replacement of the entire collection system, expansion and permitting of the land application system, treatment lagoon improvements, and lift station rehabilitation.

Anthem Water Campus, Wastewater Treatment Plant Phase 2 Expansion, Anthem, Arizona. The project included new construction of a Micro Filtration Membrane (MF) system to replace the existing MF plant increasing treatment capacity from 0.5 MGD to 1.5 MGD. New construction included a diversion man hole and influent pump station, a grinder and grit removal system housed in a new headworks building, a bioreactor/equalization basin, MF membrane tanks, odor control facilities, WAS pumping station, an electrical control room, a process pump and piping area and a process air supply system housed in a new process equipment building. The project also requires modifications to the existing chlorine contact basin, demolition of the existing MF facility, transformation of the existing MF membrane basins into sludge holding tanks.

Surprise Wastewater Treatment Plant Expansion, Surprise, Arizona. The project increased the plant capacity from 0.8 MGD to 3.2 MGD. Construction involved improvements to the existing liquid stream facilities and the addition of a new facility adjacent to the existing facilities. Improvement to the existing facilities included modifications to the headwork's system, flow diversion improvements to the Oxidation Ditch diversion structure, modifications to the thickened sludge-holding tank, conversion of the chlorine disinfection system to a UV disinfection system and increased capacity to the plant water delivery system. New facility construction included oxidation ditches, secondary clarifiers, Autothermal Thermophillic Aerobic Digestion (ATAD) system, odor control system, effluent pump station, and solids handling facility. Final construction cost: $8.3 million. Original cost: $7.6 million.

FORSGREN Associates Inc.

Jason T. Broome, P.E.

Environmental Engineer

Education

- ME, Civil Engineering. North Carolina State University, 1996-97
- BS, Civil Engineering. North Carolina State University, 1996

Registration

Professional Engineer

- Utah #4804418-2202

Professional Endeavors

- Water Environment Federation

Jason Broome has 15 years of experience in civil and environmental engineering with a focus on the design and project management of water and wastewater facilities. His design experience includes preliminary and detailed design of mechanical and pumping systems. Mr. Broome's planning experience includes wastewater master planning and regional wastewater feasibility studies. His construction management experience includes submittal review and construction services for various water and wastewater facilities.

WASTEWATER DESIGN

Cogeneration Facility Upgrade, Central Valley WRF, Salt Lake City, Utah Project Engineer. Participated in design of systems associated with replacement of digester gas engine sets. Tasks included calculations associated with heat recovery water systems pumps and piping, and preparation of specifications for Owner procurement.

Cogeneration Facility Upgrade, Salt Lake City WRF, Utah Project Engineer. Participated in the construction administration phase of the project that included all new digester gas generation engines and associated systems. Tasks included new circulating sludge pump design and calculations, shop drawing review, and construction observation.

Littleton-Englewood CO WWTP Upgrade Project Engineer. Designed the 100 mgd secondary effluent pump station and methanol facilities for the denitrifying filters portion of the upgrade. Tasks included hydraulic calculations and pump selection, pump station layout, methanol chemical calculations, and mechanical design of methanol building.

Reuse System Design, City of Mesquite, Nevada Project Engineer. Designed municipal wastewater reuse system for a 2 mgd WWTP, including storage ponds, detention basins, pipelines, and booster pump station. Involved in HEC modeling, detention basin planning and design, spillway design, system design and booster ps design, and cost estimating.

University of Nevada-Reno Fire Science Academy Fire WTP, Carlin, Nevada Project Engineer. Responsible for design of treatment system to treat water used in fire fighting training facilities; project was design-build. Treatment included large oil-water separators, dissolved air flotation, and extensive fuel oil recovery system. Tasks included civil design (site layout, piping layouts), mechanical and chemical design (DAF building layout, tank layouts, pumps, chemical systems), cost estimates, shop drawing review, and construction management.

Sewage Pump Stations, Jordanelle Special Service District, Utah Project Engineer. Engineer in charge of design of two pump stations, 2.0 mgd and 0.4 mgd. Responsible for coordination of overall project and all disciplines, pump station design and layout, hydraulic calculations, mechanical design, cost estimates, writing specifications, bid services, and construction services.

Jason T. Broome, P.E.

Environmental Engineer

Eastside WWTP Upgrade, City of High Point, North Carolina Project Engineer. Design of 26 mgd wastewater treatment plant upgrade, including calculation of plant hydraulic profile, hydraulic calculations and design of nitrified recycle pump station and return activated sludge pump station, design of sludge fermentation system, cost estimate, and specification writing.

Northside and Southside Pump Stations, City of Greenville, North Carolina Project Engineer. Design of 33.6 mgd and 10.4 mgd sewage pump stations, including hydraulic calculations, pump sizing and design, specifications, and cost estimate.

Water Pollution Control Plant Upgrade, Arlington County, Virginia Project Engineer. Design of 80 mgd upgrade, including calculation of hydraulic profile through plant and other hydraulic profile related items.

Rocky River WWTP Influent PS, Water and Sewer Authority of Cabarrus County, North Carolina Project Engineer. Design of influent pump station, including hydraulic calculations, pump sizing, and mechanical design.

Mauldin Rd WWTP Upgrade, Western Carolina Regional Sewer Authority, South Carolina Project Engineer. Design of return activated sludge pumping associated with the plant expansion, including hydraulic calculations and mechanical design.

Swift Creek Pump Station, Town of Cary, North Carolina Project Engineer. Studied expansion alternatives for 20 mgd sewage pump station, including writing of report, hydraulic calculations, and alternative analysis.

Neuse River WWTP Upgrade, City of Raleigh, North Carolina Project Engineer. Design of conversion of 40 mgd plant to biological nutrient removal capability, including hydraulics and calculations related to the pumping involved in the project.

Wastewater Reuse Plan, Jordanelle Special Service District, Utah Project Engineer. Authored reclaimed water reuse plan, with water balance, consumption, etc, to draft stage.

Area B WWTP, Jordanelle Special Service District, Utah Project Engineer. Design of 1 mgd membrane plant to 30% level, including process, mechanical, and hydraulic design, alternatives analysis, cost estimates, and study writing.

Wastewater System, Snowbasin Ski Area, Utah Project Engineer. Study of wastewater system for Snowbasin Ski Area. Participated in overall master planning including wastewater projections, pump stations sizing and placement, pipeline sizing and routing, and treatment options.

Wastewater Facility Plan Amendment, Jordanelle Special Service District, Utah Project Engineer. Responsible for report addressing wastewater planning for Jordanelle Reservoir. Tasks included calculations involving population/wastewater projections, pump stations and pipelines sizing, treatment options, financial aspects, regulatory matters, and cost estimates.

Jason T. Broome, P.E.

Environmental Engineer

Area A Sewage Facilities Feasibility Study, Jordanelle Special Service District, Utah Project Engineer. Responsible for feasibility study regarding north end of Jordanelle Reservoir, including examining alternatives and calculations regarding pump station and pipelines sizing.

Justin V. Beard, P.E.
Project Engineer

Education

- M.S.-Civil Engineering, Brigham Young University.
- B.S.-Civil Engineering, Idaho State University.
- A.A.S.-General Engineering & Technology, Brigham Young University-Idaho

Registration

Professional Engineer

- Idaho #13566

Professional Endeavors

Forsgren Associates
Project Engineer

Idaho Department of Environmental Quality
Associate Engineer

AW Engineering
Engineering Intern

Brigham Young University
Research Assistant and Lab Instructor

Additional Training

Pumping Systems Design Course
American Society of Civil Engineers

Groundwater Modeling System (GMS)
Brigham Young University

Watershed Modeling System (WMS)
Brigham Young University

24-Hr Hazwoper Training

Mr. Beard has experience in designing public drinking water and wastewater facilities as well as experience in regulatory review and oversight of numerous projects as an associate engineer with Idaho DEQ. His experience includes design of wastewater treatment facilities, drinking water treatment plants, sewer collection systems, water distribution systems, pump stations, and water storage tanks. He has reviewed multiple water and wastewater master planning and environmental review documents. In addition, he has conducted wastewater NPDES inspections and drinking water system sanitary surveys.

Wastewater Treatment Plant Design, Soda Springs, Idaho. Designed and performed construction administration for the new 1.0 MGD wastewater treatment facility. Calculated hydraulic profile of entire process. Processes included STM Aerotor secondary treatment process, rectangular secondary clarifiers, tertiary filtration system for phosphorus removal, pump stations, and associated facilities.

Wastewater Treatment Plant Headworks Design and Construction Administration, Soda Springs, Idaho. Designed and performed construction administration the new 1.5 MGD headworks facility for the existing wastewater treatment plant. Calculated hydraulic profile of headworks process. Processes included new drum screen, vortex grit chamber, bar screen, and primary lift station.

Wastewater Treatment Plant Value Engineering Report, Soda Springs, Idaho. Reviewed the plans and specifications prepared by another consultant to find ways to improve the design and reduce costs in the construction of the plant. Prepared detailed cost estimates and technical memorandums for recommendations of the VE report.

Shelley Wastewater Collection Facility Planning Study, Shelley, Idaho. The study reviewed and recommended improvements to the City's aging wastewater collection system. Most of the recommendations included rehabilitation of existing lines using methods that minimized excavation.

Wastewater Treatment Plant Technical Memorandum and Preliminary Engineering Report, Soda Springs, Idaho. Evaluated multiple treatment processes to meet new NPDES discharge requirements. Prepared preliminary layouts and process flow diagrams for treatment options. Formulated recommendations for plant improvements and prepared cost estimates of upgrades. Performed preliminary calculations for sizing of all major processes and equipment.

Springer Water Preliminary Engineering Report, Springer, New Mexico. The study reviewed the condition of the existing water system and recommended improvements that would allow the Town to comply with agency compliance orders regarding disinfection byproducts that exceeded the MCL and backwash discharges that violated the Town's NPDES permit.

Eastern Interceptor Sewer Transmission Line, Ammon, Idaho. Assisted the project manager in the design of a thirteen-mile long, 36 to 48-inch diameter sewer transmission line. The transmission line carries sewage from the City of Ammon to the new regional Oxbow sewer treatment plant in Shelley, Idaho.

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Justin V. Beard, P.E.
Project Engineer

Woodland Hills Sewer Transmission Line, Ammon, Idaho. Designed a mile long, 30-inch diameter sewer transmission line. The transmission line carries sewage from the City of Ammon to the new regional Oxbow sewer treatment plant in Shelley, Idaho.

Firth WWTP Quality Assurance and Emergency Response Plans, Firth, Idaho.
Mr. Beard prepared the quality assurance and emergency response plans for the Firth WWTP as required by the City's NPDES permit from EPA.

Idahoan Foods Process Water Pipeline, Lewisville, Idaho. Mr. Beard was responsible for the fast-track design of a 10-inch process water pipeline to transfer wastewater to the land application site for disposal. The old line had failed and the new line had to be constructed within a 2 week window. The design included a state highway bore and a canal crossing.

Formation Springs Preliminary Engineering Report, Soda Springs, Idaho. One of the City's main water supply springs was determined to be under the direct influence of surface water. The study investigated methods to improve spring water collection and recommended improvements to the water collection system.

Water Treatment Plant, LaBarge, Wyoming. Reviewed and evaluated proposals for the supply of drinking water membrane treatment equipment for the new Town of Labarge water treatment plant. Prepared recommendation to the City of best option for equipment purchase. Also prepared specifications for the construction of the water treatment plant.

Reviews of SRF-funded Facility Planning Studies. As an associate engineer with Idaho DEQ, Mr. Beard reviewed SRF-funded facility planning studies and environmental review documents. The studies were reviewed for adherence to state drinking water and wastewater rules, technical merit, financial feasibility, and for the requirements of the SRF grant program. Mr. Beard performed in-depth reviews of thirteen drinking water facility planning studies and two wastewater facility planning studies for systems located in Southeastern Idaho.

NPDES Inspections of Wastewater Treatment Plants. As an associate engineer with Idaho DEQ, Mr. Beard assisted with NPDES inspections of most wastewater treatment plants in Southeastern Idaho. The purpose of these inspections was to determine compliance status with regulations, permit conditions, and other program requirements; verify the accuracy of information submitted by permittee; and verify the adequacy of sampling and monitoring conducted by the permittee.

Salmon Local Improvements District (LID) Feasibility Study, Salmon, Idaho. The study explored the options available to the City of Salmon to extend sewer and water service to three areas of town that have been annexed, but are not yet provided with City services. This included extending services to a new land development project that would be included in the LID. This investigation compiled cost estimates for multiple options to implement the LID districts in the City. Compiling the study required familiarization with the existing City of Salmon drinking water distribution and sewer collection systems, as wells as the existing City GIS mapping system.

FORSGREN Associates Inc.

Camille Croft, E.I.T.
Project Engineer

Education

- B.S.-Civil Engineering, Idaho State University.

Professional Endeavors

Forsgren Associates
Project Engineer

Idaho National Laboratory (Advanced Test Reactor)
Engineering Intern

Idaho Transportation Department
Engineering Intern

Camille has experience in data collection and data analyses using water modeling programs such as Haestad Methods, WaterGems and SewerGems. She has experience producing visually appealing maps using ARC GIS. She also has experience in bridge hydraulics using HEC-RAS.

Arco Water System Improvements, Arco, Idaho. Camille aided in the design of improvements to the City of Arco drinking water system including the design of three new well houses, a new booster pump station, and a new bolted steel water tank.

Springer Water Preliminary Engineering Report, Springer, New Mexico. The study reviewed the condition of the existing water system and recommended improvements that would allow the Town to comply with agency compliance orders regarding disinfection byproducts that exceeded the MCL and backwash discharges that violated the Town's NPDES permit. Camille aided in the water modeling of Town's current distribution system using Water Gems. She also aided in the completion of GIS mapping systems for the Town's current soil, topography, land use, geology, well locations and surface water.

Shelley Wastewater Collection Facility Planning Study, Shelley, Idaho. The study reviewed and recommended improvements to the City's aging wastewater collection system. Most of the recommendations included rehabilitation of existing lines using methods that minimized excavation. Camille aided in the data collection for the City's existing manholes and wastewater collection system.

Iona Bonneville Sewer District Sewer Main Lines Cleaning and Inspection, Idaho Falls, Idaho. Camille aided in the creation of multiple maps using GIS Mapping for the completion of inspection and cleaning in the IBSD Sewer Collection system. This accounts for nearly 400,000 LF of sewer lines and 150 manholes.

Groveland Road, Blackfoot, Idaho. Camille performed bridge hydraulic analysis using the program HEC-RAS to determine the new alignment for the bridge on Groveland Road. She also completed an analysis using Synchro for determining traffic delays in order to compute LOS for existing and future roadway conditions.

Eagle Farms Annual Department of Environmental Quality Report, Idaho Falls, Idaho. Camille completed the Annual Report for Eagle Farms, a potato processing plant in Idaho Falls. This required becoming familiar with the current permit limits in hydraulic loading, constituent loading and crop uptake and then calculating their actual loading based upon monitoring requirements.

Stormwater Design for Woodland Drive Subdivision, Soda Springs, Idaho. Camille analyzed the storm water runoff and found solutions for the accumulated water for Woodland Drive subdivision. She developed a Drainage Study Exhibit for the area generating runoff and calculated the drainage based upon this. She assisted in solution options and developing runoff disposal options.

FORSGREN Associates Inc.

Camille Croft, E.I.T
Project Engineer

Wastewater Treatment Plant Operation and Maintenance Manuals, Soda Springs, Idaho. Camille assembled the Operation and Maintenance Manuals for the new 1.0 MGD wastewater treatment facility.

Advanced Test Reactor, Idaho National Laboratory. Camille interacted with system engineers on a daily basis to gain hands on experience with system drawings and configuration management database. She completed walk downs of the current water and wastewater system to verify the drawings matched up with the current configuration gaining knowledge in how these systems worked together and separately.

Idaho Transportation Department, District 5, Pocatello, Idaho. Camille became experienced in project management by planning and executing a class on the basics of a computer program, Synchro, which is required for the roadway design process. She increased her knowledge of how topography is used and needed in roadway projects. She learned what it takes to design a new section of roadway from start to finish, including data collection, data analysis, and pavement management.

FORSGREN Associates Inc.

AGREEMENT
BETWEEN
THE CITY OF HAILEY, IDAHO AND FORSGREN ASSOCIATES, INC.
FOR PROFESSIONAL SERVICES

This agreement is made as of this 29th day of May, 2014, between the City of Hailey ("OWNER") and FORSGREN ASSOCIATES, INC., ("ENGINEER") an Idaho corporation, with principal offices at 350 North 2nd East, Rexburg, Idaho, 83440 for services in connection with the project known as the Biosolids Treatment Facility Plan Review ("Project") which, for the purpose of this contract, includes evaluating the alternatives and costs presented in the Biosolids Treatment Facility Plan developed by others.

Whereas, the OWNER desires to engage ENGINEER to provide professional engineering, consulting and related services ("Services") in connection with the Project; and

Whereas, ENGINEER desires to render these Services as described in SECTION I, Scope of Services.

Therefore, OWNER and ENGINEER in consideration of the mutual covenants contained herein, agree as follows:

SECTION I. SCOPE OF SERVICES

ENGINEER will provide Services for the Project, which consist of the Scope of Services as described in attached Exhibit A.

SECTION II. TERMS AND CONDITIONS OF ENGINEERING SERVICES

The "Forsgren Associates, Inc., Terms and Conditions for Professional Services," which are attached hereto as Exhibit B, are incorporated into this Agreement by this reference as if fully set forth herein.

SECTION III. RESPONSIBILITIES OF OWNER

The OWNER shall provide the information set forth in paragraph 6 of the attached "Forsgren Associates, Inc. Terms and Conditions for Professional Services" and as mentioned in Exhibit A, Scope of Services.

SECTION IV. COMPENSATION

Compensation for ENGINEER'S services under this Agreement shall be on a time and materials basis with a level of effort commensurate with approximately 20 hours of an Engineer IV at $145/hour and an Engineer V at $180/hour. Any additional services requested by the Owner shall be compensated on a time and materials basis.

Ordinary reimbursable expenses defined as local transportation, computer usage, copies, telephone, and postage, shall be added to the time and materials tasks in the form of a $5 per billed manhour and labeled a *Reimbursable Project Expense.* Extraordinary reimbursable expenses such as travel, lodging, per deim, equipment, and subconsultants will be invoiced as a reimbursable expense.The amount of any sales tax, excise tax, value added tax (VAT), or gross receipts tax that may be imposed on this Agreement shall be added to the ENGINEER'S compensation as Reimbursable Expenses.

Compensation terms are defined as follows:

Time and materials shall mean a rate extracted from the current title code rate table for a specific labor category and includes direct labor cost, indirect labor cost, and profit.

Reimbursable Expense shall mean the actual expenses incurred directly or indirectly in connection with the Project for transportation travel, subconsultants, subcontractors, computer usage, telephone, telex, shipping and express, and other incurred expense. ENGINEER will add ten percent (10%) to invoices received by ENGINEER from subconsultants and subcontractors to cover supervision, administrative, and insurance expenses.

SECTION V. PERIOD OF SERVICE

Upon receipt of written authorization to proceed, ENGINEER shall perform the services according to the following schedule: 30 days following receipt of a written Authorization to Proceed issued by the OWNER.

Unless otherwise stated in this Agreement, the rates of compensation for ENGINEER'S services have been agreed to in anticipation of the orderly and continuous progress of the project through completion. If the specified dates for completion are attributable to the OWNER, the time for performance of those services shall be automatically extended for a period which may be reasonably required for their completion and all rates, measures and amounts of ENGINEER'S compensation shall be equitably adjusted through negotiation by the OWNER and the ENGINEER.

SECTION VI. AUTHORIZATION

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

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

FORSGREN ASSOCIATES, INC.	CITY OF HAILEY
"ENGINEER"	"CLIENT"
BY: Brent E. Crowther	BY: _____
NAME: Brent E. Crowther, P.E.	NAME: _____

DATE	5/28/14	DATE:	
TITLE:	Division Manager	TITLE:	

EXHIBIT A

SCOPE OF SERVICES

Project Title: Biosolids Treatment Facility Plan Review.

Project No. 01-14-00XX

EXHIBIT A - SCOPE OF SERVICES

Section 100 – Project Management

Section 200 – Planning

Section 300 – Environmental (not used)

Section 400 – Preliminary Design (not used)

Section 500 – Design (not used)

Section 600 – Bid Services (not used)

Section 700 – Construction Administration (not used)

Section 800 – Survey (not used)

Section 900 – Additional Services (not used)

SCOPE OF SERVICES

GENERAL

This scope of services describes the work anticipated for performance by Forsgren Associates, Inc. (Engineer), on behalf of The City of Hailey (Owner) to provide technical support related to the Biosolids Treatment Facility Plan, particularly a review of the document previously prepared by others.

Background

The Owner previously contracted with a separate engineering company to prepare a Biosolids Treatment Facility Plan to evaluate alternatives for improvements to the biosolids handling facilities at their wastewater treatment plant. The Owner intends on financing the design and construction of any improvements to the biosolids handling facilities with the proceeds of a municipal revenue bond. Prior to approving preparation of final design documents, the Owner would like a 3rd party evaluation of the alternatives and recommendations presented in the Facilities Planning Study document.

SECTION 100 – PROJECT MANAGEMENT SERVICES

Project management is an essential element of every project. Project management describes the activity necessary to organize and coordinate resources to accomplish project objectives related to budget and schedule. Work included in Section 100 – Project Management Services is described as:

Project Development. Project development describes tasks necessary to define the project in terms of identifying the client's expectations and assigning resources to meet those expectations according to an established schedule. For that endeavor, the Engineer agrees to prepare an initial agreement and scope of services that identifies the work tasks and deliverables, establishes a project schedule with task duration and project milestones, assign appropriate resources including personnel to the project, and prepare a budget for completion of the work tasks using the assigned resources as herein stated. The Engineer agrees to prepare for, attend, conduct, and document one scoping meeting at the project site or the Engineer's office to identify the Client's goals and expectations. The meeting attendees will include the Client and the Engineer. The specific subtasks include:

- Identify Client Goals and Expectations.
- Define Scope of Services.
- Identify Tasks and Deliverables.
- Project Schedule.
- Determine Organization Chart.
- Prepare Budget.

Notice to Proceed. Following discussions with the Client and review and comment by the Client, the Engineer agrees to finalize documents including the agreement for services and the scope describing those services. By signing this agreement, the Client has authorized the Engineer to proceed with the task set forth herein.

Project Initiation. The Engineer agrees to establish project accounting; develop a project guide for internal use clarifying the project goals, outlining responsibilities for project stakeholders, presenting the project schedule, and defining the quality assurance and quality control procedures, and obtain staffing commitments.

Project Execution. Project management includes monitoring the project throughout the project duration to evaluate project progress toward meeting the established goals, reviewing the product, schedule maintenance, project documentation, and communicating project progress to the Client.

Project Completion. At the conclusion of the project, the Engineer agrees to forward the project results to the Client and/or its representative.

Project Closeout. Following acceptance of the deliverables by the Client, the Engineer agrees to initiate close-out procedures for archiving the project in the temporary files of the Engineer.

Client Responsibilities:

- Review and comment on the scope documents.
- Issue a Notice to Proceed. Such authorization to proceed as stated above has been authorized by Client per this agreement.

Deliverables:

- One (1) draft copy(ies) of the agreement, scope of services and project schedule.
- One (1) final copy(ies) of the agreement, scope of services and project schedule.

SECTION 200 – PLANNING SERVICES

The Engineer agrees to perform the following planning services related to a review of the Biosolids Treatment Facility Plan. It is anticipated the analysis may include the following tasks:

Prior to engagement for completion of the services described in this agreement, the Owner engaged another consulting engineer and completed a Facilities Planning Study (FPS) describing proposed modifications to the biosolids handling facilities owned by the City. For reasons known to the Owner, they have elected to review the effort of the previous work with the intent of validating the recommendations contained in the FPS or suggestions for alternate means of accomplishing the project objectives at a lower cost. The Owner may also be interested in value engineering, defined as alternative methods of accomplishing the project objectives without reducing the quality of the end product, and cost reduction strategies, defined as suggestions that reduce the overall project cost by reducing the scope of supply or eliminating items while still meeting overall project objectives.

Task 1: Review Existing Data and Reports

Task Summary

- Facilities Planning Study Review.
- Site visit to evaluate current solids handling operation.
- Identify and Define Alternatives to be studied -- Repair and Maintenance, Upgrade, Etc.

Task Description

The Engineer agrees to review the existing Biosolids Treatment FPS; review existing compliance sampling data and lab reports, provide value analysis services; review the engineer's opinions of probable cost for the recommended alternative; identify other alternatives including new construction, reconstruction, rehabilitation, and maintenance of the existing biosolids

dispersal/disposal alternatives that may meet the project objectives.

The anticipated product of this evaluation is a value engineering/cost reduction strategy report. At present, the Owner has requested approximately 20 hours of effort for these services. The content of the report will be commensurate with the level of effort approved by the Owner. At the Owner's discretion, this effort may be reduced or increased to accomplish the desired objectives.

Owner Responsibilities

- Review and approve scope of services
- Communicate project objectives to the Engineer
- Provide access to the project site
- Review and comment on a draft report

Deliverables

- Five (5) copies of a draft report
- Five (5) copies of a final report

SECTION 300 – ENVIRONMENTAL

The Engineer is not providing environmental services as part of this contract.

SECTION 400 – PRELIMINARY DESIGN

The Engineer is not providing preliminary design services as part of this contract.

SECTION 500 – DESIGN SERVICES

The Engineer is not providing design services as part of this contract.

SECTION 600 – BID SERVICES

The Engineer is not providing bid services as part of this contract

SECTION 700 – CONSTRUCTION ADMINISTRATION SERVICES

The Engineer is not providing construction administration services as part of this contract.

SECTION 800 – SURVEY

The Engineer is not providing survey services as part of this contract.

SECTION 900 – ADDITIONAL SERVICES

Other services as requested by the Client throughout this project shall be performed upon agreement of the scope of services and issuance of a written notice to proceed. The Engineer shall be compensated for such services based on current hourly billing rates including overhead and profit or by other means as agreed in writing.

Forsgren Associates, Inc.
Terms and Conditions for Professional Services

1. **STANDARD OF PERFORMANCE**
The standard of care for all professional engineering, consulting and related services performed or furnished by ENGINEER and its employees under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under the same or 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.

2. **INSURANCE**
ENGINEER agrees to procure and maintain, at its expense, Workers' Compensation insurance as required by statute; Employer's Liability of $250,000; Automobile Liability insurance of $1,000,000 combined single limit for bodily injury and property damage covering all vehicles, including hired vehicles, owned and non-owned vehicles; Commercial General Liability insurance of $1,000,000 combined single limit for personal injury and property damage; and Professional Liability insurance of $1,000,000 per claim for protection against claims arising out of the performance of services under this Agreement caused by negligent acts, errors, or omissions for which ENGINEER is legally liable. Upon request, OWNER shall be made an additional insured on Commercial General and Automobile Liability insurance policies and certificates of insurance will be furnished to the OWNER. ENGINEER agrees to indemnify OWNER for the claims covered by ENGINEER's insurance.

3. **OPINIONS OF PROBABLE COST (COST ESTIMATES)**
Any opinions of probable project cost or probable construction cost provided by ENGINEER are made on the basis of information available to ENGINEER and on the basis of ENGINEER's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s') methods of determining prices, or over competitive bidding or market conditions, ENGINEER does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost ENGINEER prepares.

4. **CONSTRUCTION PROCEDURES**
ENGINEER's observation or monitoring portions of the work performed under construction contracts shall not relieve the contractor from its responsibility for performing work in accordance with applicable contract documents. ENGINEER shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedures of construction, health or safety programs or precautions connected with the work and shall not manage, supervise, control or have charge of construction. ENGINEER shall not be responsible for the acts or omissions of the contractor or other parties on the project. ENGINEER shall be entitled to review all construction contract documents and to require that no provisions extend the duties or liabilities of ENGINEER beyond those set forth in this Agreement. OWNER agrees to include ENGINEER as an indemnified party in OWNER's construction contracts for the work, which shall protect ENGINEER to the same degree as OWNER. Further, OWNER agrees that ENGINEER shall be listed as an additional insured under the construction contractor's liability insurance policies.

5. **CONTROLLING LAW**
This Agreement is to be governed by the law of the state where ENGINEER's services are performed.

6. **SERVICES AND INFORMATION**
OWNER will provide all criteria and information pertaining to OWNER's requirements for the project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations. OWNER will also provide copies of any OWNER-furnished Standard Details, Standard Specifications, or Standard Bidding Documents which are to be incorporated into the project. OWNER will furnish the services of soils/geotechnical engineers or other consultants that include reports and appropriate professional recommendations when such services are deemed necessary by ENGINEER. The OWNER agrees to bear full responsibility for the technical accuracy and content of OWNER-furnished documents and services.

In performing professional engineering and related services hereunder, it is understood by OWNER that ENGINEER is not engaged in rendering any type of legal, insurance or accounting services, opinions or advice. Further, it is the OWNER's sole responsibility to obtain the advice of an attorney, insurance counselor or accountant to protect the OWNER's legal and financial interests. To that end, the OWNER agrees that OWNER or the OWNER's representative will examine all studies, reports, sketches, drawings, specifications, proposals and other documents, opinions or advice prepared or provided by ENGINEER, and will obtain the advice of an attorney, insurance counselor or other consultant as the OWNER deems necessary to protect the OWNER's interests before OWNER takes action or forebears to take action based upon or relying upon the servicesprovided by ENGINEER.

7. **SUCCESSORS AND ASSIGNS**
OWNER and ENGINEER, respectively, bind themselves, their partners, successors, assigns, and legal representatives to the covenants of this Agreement. Neither OWNER nor ENGINEER will assign, sublet, or transfer any interest in this Agreement or claims arising therefrom without the written consent of the other.

8. **RE-USE OF DOCUMENTS**
All documents, including all reports, drawings, specifications, computer software or other items prepared or furnished by ENGINEER pursuant to this Agreement, are instruments of service with respect to the project. ENGINEER retains ownership of all such documents. OWNER may retain copies of the documents for its information and reference in connection with the project; however, none of the documents are intended or represented to be suitable for reuse by OWNER or others on extensions of the project or on any other project. Any reuse without written verification or adaptation by ENGINEER for the specific purpose intended will be at OWNER's sole risk and without liability or legal exposure to ENGINEER, and OWNER will defend, indemnify and hold harmless ENGINEER from all claims, damages, losses and expenses, including attorney's fees, arising or resulting therefrom. Any such verification or adaptation will entitle ENGINEER to further compensation at rates to be agreed upon by OWNER and ENGINEER.

9. **TERMINATION OF AGREEMENT**
OWNER or ENGINEER may terminate the Agreement, in whole or in part, by giving seven (7) days written notice, if the other party substantially fails to fulfill its obligations under the Agreement through no fault of the terminating party. Where the method of payment is "lump sum," or cost reimbursement, the final invoice will include all services and expenses associated with the project up to the effective date of termination. An equitable adjustment shall also be made to provide for termination settlement costs ENGINEER incurs as a result of commitments that had become firm before termination, and for a reasonable profit for services performed.

10. **SEVERABILITY**
If any provision of this agreement is held invalid or unenforceable, the remaining provisions shall be valid and binding upon the Terms & Conditions for Professional Services 2 (10/2001) parties.

One or more waivers by either party of any provision, termor condition shall not be construed by the other party as a waiver of any subsequent breach of the same provision, term or condition.

11. INVOICES

ENGINEER will submit monthly invoices for services rendered and OWNER will make prompt payments in response to ENGINEER's invoices.

ENGINEER will retain receipts for reimbursable expenses in general accordance with Internal Revenue Service rules pertaining to the support of expenditures for income tax purposes. Receipts will be available for inspection by OWNER's auditors upon request.

If OWNER disputes any items in ENGINEER's invoice for any reason, including the lack of supporting documentation, OWNER may temporarily delete the disputed item and pay the remaining amount of the invoice. OWNER will promptly notify ENGINEER of the dispute and request clarification and/or correction. After any dispute has been settled, ENGINEER will include the disputed item on a subsequent, regularly scheduled invoice, or on a special invoice for the disputed item only.

OWNER recognizes that late payment of invoices results in extra expenses for ENGINEER. ENGINEER retains the right to assess OWNER interest at the rate of one percent (1%) per month, but not to exceed the maximum rate allowed by law, on invoices which are not paid within forty-five (45) days from the date of the invoice. In the event undisputed portions of ENGINEER's invoices are not paid when due, ENGINEER also reserves the right, after seven (7) days prior written notice, to suspend the performance of its services under this Agreement until all past due amounts have been paid in full.

12. CHANGES

The parties agree that no change or modification to this Agreement, or any attachments hereto, shall have any force or effect unless the change is reduced to writing, dated, and made part of this Agreement. The execution of the change shall be authorized and signed in the same manner as this Agreement. Adjustments in the period of services and in compensation shall be in accordance with applicable paragraphs and sections of this Agreement. Any proposed fees by ENGINEER are estimates to perform the services required to complete the project as ENGINEER understands it to be defined. For those projects involving conceptual or process development services, activities often are not fully definable in the initial planning. In any event, as the project progresses, the facts developed may dictate a change in the services to be performed, which may alter the scope. ENGINEER will inform OWNER of such situations so that changes in scope and adjustments to the time of performance and compensation can be made as required. If such change, additional services, or suspension of services results in an increase or decrease in the cost of or time required for performance of the services, an equitable adjustment shall be made, and the Agreement modified accordingly.

13. CONTROLLING AGREEMENT

These Terms and Conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice-to-proceed, or like document.

14. EQUAL EMPLOYMENT AND NONDISCRIMINATION

In connection with the services under this Agreement, ENGINEER agrees to comply with the applicable provisions of federal and state Equal Employment Opportunity, and other employment, statutes and regulations.

15. HAZARDOUS MATERIALS

OWNER represents to ENGINEER that, to the best of its knowledge, no hazardous materials are present at the project site. However, in the event hazardous materials are known to be present, OWNER represents that to the best of its knowledge it has disclosed to ENGINEER the existence of all such hazardous materials, including but not limited to asbestos, PCB's, petroleum, hazardous waste, or radioactive material located at or near the project site, including type, quantity and location of such hazardous materials. It is acknowledged by both parties that ENGINEER's scope of services do not include services related in any way to hazardous materials. In the event ENGINEER or any other party encounters undisclosed hazardous materials, ENGINEER shall have the obligation to notify OWNER and, to the extent required by law or regulation, the appropriate governmental officials, and ENGINEER may, at its option and without liability for delay, consequential or any other damages to OWNER, suspend performance of services on that portion of the project affected by hazardous materials until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the hazardous materials; and (ii) warrants that the project site is in full compliance with all applicable laws and regulations. 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 materials, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the project site in connection with ENGINEER's services under this Agreement. If ENGINEER's services hereunder cannot be performed because of the existence of hazardous materials, ENGINEER shall be entitled to terminate this Agreement for cause on 30 days written notice. To the fullest extent permitted by law, OWNER shall indemnify and hold harmless ENGINEER, its officers, directors, partners, employees, and subconsultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from hazardous materials, provided that (i) any such cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or injury to or destruction of tangible property (other than completed Work), 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 sole negligence or willful misconduct.

16. EXECUTION

This Agreement, including the exhibits and schedules made part hereof, constitute the entire Agreement between ENGINEER and OWNER, supersedes and controls over all prior written or oral understandings. This Agreement may be amended, supplemented or modified only by a written instrument duly executed by the parties.

17. LIMITATION OF LIABILITY

ENGINEER's and its employees' total liability to OWNER for anyloss or damage, including but not limited to special and consequential damages arising out of or in connection with the performance of services or any other cause, including ENGINEER's and its employees' professional negligent acts, errors, or omissions, shall not exceed the lesser of $50,000 or the total compensation received by ENGINEER hereunder, except as otherwise provided under this Agreement, and OWNER hereby releases and holds harmless ENGINEER and its employees from any liability above such amount.

18. LITIGATION SUPPORT

In the event ENGINEER is required to respond to a subpoena, government inquiry or other legal process related to the services in connection with a legal or dispute resolution proceeding to which ENGINEER is not a party, OWNER shall reimburse ENGINEER for reasonable costs in responding and compensate ENGINEER at its then standard rates for reasonable time incurred in gathering information and documents and attending depositions, hearings, and trial.