

Engineering Department

REQUEST FOR PROPOSALS

(C3)RFP E13-033

WASTEWATER PLANT DOCUMENT UPDATES

Issued By:  Date: 7-3-2012
Jennifer Mannix, Contract Administrator

**Request for Proposals (RFP)
Wastewater Plant Documentation Updates
(C3)RFP E13-033**

SCOPE OF WORK: The City and Borough of Juneau (CBJ or City) requests proposals from qualified engineering consultants to evaluate and document the condition and process performance of its Juneau Douglas Wastewater Treatment Plant (JDWWTP) and make recommendations for improving the plant facility and operation. The need for these services was prompted by an Alaska Department of Environmental Conservation (ADEC) Technical Inspection Summary of conditions at the JDWWTP which is included as Attachment 1 to this request for proposals.

The selected consultant will initially perform these services for the JDWWTP and may be authorized at a later date to provide similar services for the Mendenhall Wastewater Treatment Facility (MWWTF) and/or the Auke Bay Wastewater Treatment Plant (ABWWTP). The CBJ's determination of whether or not to use the same consultant to provide similar services for the MWWTF and the ABWWTP will be based upon the City's satisfaction with the initial services provided for the JDWWTP, available funding, and other factors.

PRE-PROPOSAL MEETING: A non-mandatory pre-proposal meeting will be held in the 3rd floor Engineering Department conference room, 230 South Franklin Street, Marine View Center, at **10:00 a.m., Alaska time on July 12, 2012**. Persons interested in submitting proposals are encouraged to attend. Conference call capability will be available for the Pre-Proposal meeting. Proposers intending to participate via conference call shall notify Janet Sanbei in the CBJ Engineering Contracts Division, at (907) 586-0480, or janet_sanbei@ci.juneau.ak.us by 4:30 p.m., July 11, 2012.

QUESTIONS REGARDING THIS RFP: Jennifer Mannix, Contract Administrator, phone 907-586-0873, fax 907-586-4530, jennifer_mannix@ci.juneau.ak.us is the sole point of contact for all issues pertaining to this procurement.

DEADLINE FOR PROPOSALS: 7 copies of the proposal, in a ***sealed envelope***, must be received by the Purchasing Division prior to 2:00 p.m. Alaska Time on July 24, 2012, or such later time as the Contract Administrator may announce by addendum to planholders at any time prior to the submittal date. Proposals will be time-stamped by the Purchasing Division, which will establish the official time of receipt of proposals. Late proposals will not be accepted and will be returned unopened. Faxed or emailed proposals will not be accepted.

Note: Mailing/delivery times to Alaska may take longer than other areas of the U.S.

Proposal documents delivered in person or by courier services must be delivered to:

PHYSICAL LOCATION:
City and Borough of Juneau, Purchasing Division
105 Municipal Way, Room 300
Juneau, AK 99801

Proposal documents delivered by the U.S. Postal Service must be mailed to:

MAILING ADDRESS:

City and Borough of Juneau, Purchasing Division
155 South Seward Street
Juneau, AK 99801

The CBJ Purchasing Division's phone number is 907-586-5258, and fax number 907-586-4561.

Please affix the label below to the outer envelope in the lower left hand corner.

IMPORTANT --	NOTICE TO PROPOSER	
To submit your proposal: 1. Print your company name and address on the upper left corner of your envelope. 2. Complete this label and place it on the lower left corner of your envelope.		
S E A L E D	PROPOSAL NUMBER: RFP E13-033	P R O P O S A L
	SUBJECT: Wastewater Plant Document Updates	
	DATE OF OPENING AT 2:00 P.M. ALASKA TIME: <hr/>	

Disadvantaged Business Enterprises are encouraged to respond.

TABLE OF CONTENTS

1.0 GENERAL INFORMATION

2.0 RULES GOVERNING COMPETITION

3.0 PROPOSAL CONTENT REQUIREMENTS

4.0 EVALUATION OF PROPOSALS

5.0 SELECTION AND AWARD PROCESS

6.0 INSURANCE REQUIREMENTS

7.0 JUNEAU PROPOSER POINTS

8.0 PROTESTS

9.0 JUNEAU SALES TAX AND PERSONAL PROPERTY TAX

**ATTACHMENT 1 - ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (ADEC)
TECHNICAL INSPECTION SUMMARY OF CONDITIONS AT THE JDWWTP**

ATTACHMENT 2 – SAMPLE CONTRACT

1.0 GENERAL INFORMATION

This Class 3 RFP defines the scope of the project, explains the procedures for selecting a firm to provide the requested services, and defines the documents required to respond to the RFP.

1.1 Purpose

The primary purpose of this RFP is to solicit proposals from qualified engineering consultants to evaluate and document the condition and process performance of its Juneau Douglas Wastewater Treatment Plant (JDWWTP) and make recommendations for improving the plant facility and operation. Anticipated deliverables by the consultant may include:

- a. Facility Maintenance Evaluation Report,
- b. Facility Operations Evaluation Report,
- c. Facility Plan,
- d. Facility Replacement Report, and
- e. Other documents if requested by the City

The city reserves the right to add, subtract, or combine to the above list of consultant work tasks to achieve its goals of:

- a. Identifying and correcting existing deficiencies at the plant,
- b. Evaluating and improving plant operation,
- c. Identifying the type and magnitude of future Capital Improvement Projects (CIPs), and
- d. Developing replacement priorities and scheduling needed plant improvements.

The proposals requested by this RFP will be procured under the Class 3 process which is used by the City for the acquisition of professional services contracts estimated to be more than \$50,000. Interested consultants responding to this RFP are instructed to address their proposals to the specific needs of the JDWWTP and do not need to specifically discuss the MWWTF or the ABWWTP.

1.2 Background

Juneau is Alaska's capital city and is located in southeastern Alaska. The CBJ municipal offices are located at 155 South Seward Street, Juneau, Alaska 99801. The CBJ Engineering Department is located on the 3rd Floor of the Marine View Center, 230 South Franklin Street, Juneau, Alaska.

The JDWWTP is the City's second largest wastewater treatment plant and is located at 1540 Thane Road approximately one mile south of the city's downtown area. The JDWWTP treats wastewater originating from downtown Juneau, the portion of Douglas Island extending from downtown Douglas to approximately five mile North Douglas Highway, and the area between downtown Juneau and the Salmon Creek (approximately 3 mile Glacier Highway).

The JDWWTP was designed and constructed in 1973 with the capacity to treat the projected plant loadings through the year 1990. The plant was designed as a complete mix, activated sludge plant that operates in both the conventional and extended aeration modes. The designed flow capacity is 2.76 million gallons per day (MGD) with a peak flow of 7.23 MGD.

A summary of major modifications that have been made since the original construction of the plant include:

- **1991:** Biosolids handling/processing improvements consisting of a belt filter press for sludge dewatering, polymer mixing/injection equipment, and a high temperature fluidized bed incinerator were added. The incinerator has since surpassed its expected life and has not been operable since October 2010. The plant's biosolids are currently being shipped to private landfills for disposal.
- **1995:** A covered biosolids storage vault was added to provide emergency storage capacity in the event of a major incinerator breakdown.
- **1995:** The plant's original sludge return pumps were replaced with new units equipped with variable frequency drives (VFDs).
- **2000:** Turbidity monitoring equipment was added.
- **2001:** The plant's original gas chlorination effluent disinfection system was removed and replaced with an ultraviolet light effluent disinfection system.
- **2004:** Flow proportional composite sampling equipment was added.
- **2006:** A Bobcat model V518 Versa Handler (telescopic tool handler) and related components were purchased to more safely move chemicals, grit, clay, lime, sand and other palletized loads at the facility.
- **2007:** The plant's clarifiers were reconstructed and the VFDs on the sludge return pumps were again upgraded.
- **2008:** A Samsung model SE210 LC excavator was purchased to improve the facility's biosolids handling and solid waste site maintenance capabilities.
- **2009:** The plant's original headworks comminuter was replaced with a new influent grinder and auger monster system.
- **Other:** The plant's grit conveyor has been overhauled on approximately seven year cycles since original construction.

1.3 Scope of Services

The consultant will evaluate existing plant conditions and prepare the following reports to address existing and future plant improvement needs:

1.3.1 Facility Maintenance Evaluation Report

The report should contain, but is not limited to, the following:

- a. A complete maintenance evaluation report of each unit treatment process.
- b. A list of all mechanical units (pumps, motors, pipes, etc.) that includes condition, age, and estimated remaining useful life.
- c. A maintenance schedule for each unit treatment process that identifies required activities, frequency, and costs.
- d. A five year capital (over \$5000.00 value) replacement chart that identifies the year and estimated costs for equipment replacement.
- e. An estimate of the staffing requirements to properly maintain all unit processes and equipment at the facility.

1.3.2 Facility Operations Evaluation Report

The report should contain, but is not limited to, the following:

- a. A complete operations evaluation of each unit process that assesses efficiency and effectiveness for each unit. The evaluation should reflect both dry weather and wet weather flow conditions.
- b. Recommendations for improving the efficiency of each unit process that identifies required activities (Standard Operating Procedures) for specific conditions.
- c. An Operations Manual that include each unit process and identifies required activities (Standard Operating Procedures) for specific conditions.
- d. An estimate of the staff requirements to properly operate all unit processes at the facility.

1.3.3. Facility Plan

Evaluate existing federal, state, and local laws and regulations to understand the current and probable future regulatory requirements, including current and future National Pollutant Discharge Elimination System (NPDES) limits.

The Consultant shall develop and interpret data, perform conceptual designs of any recommended facilities and provide preliminary construction estimates, provide drawings and descriptions of recommended facilities, provide an operational plan, and implementation schedule, recommend any additional studies, plans, or reports that may be required but are not covered within this RFP.

The Facility plan will be reviewed, adopted, and implemented by the CBJ. The report should contain, but is not limited to, the following:

- a. Update the current Combined Sewer Overflow Long Term Control Plan (CSO LTCP) to meet the current permit requirements, address:
 - i. Inflow and infiltration reduction.
 - ii. Combined Sewer Overflow
- b. Update the current Quality Assurance Project Plan (QAPP) to meet the current DMR Permit requirements;
- c. Evaluate plant and process performance data including operations, maintenance biosolids production, staff requirements, and projected future growth;
- d. Interview key operational and management personnel to develop additional background on the plant and its performance and issues, including surveying key stakeholders/dischargers;
- e. Review design and operational performance of each unit process. Determine how additional process and operational control of the unit processes can be achieved. Examine electrical panels and recommend improvements or modifications;
- f. Examine existing structures and recommend improvements;
- g. The facility plan must include an evaluation and recommendations for the solids handling processes, including disposal of all material generated in the treatment process, including screenings, grit, scum, sludge, and floatables.
- h. The facility plan shall interview potential contributors to the plant, including the cruise ship industry, other industries, food processors and other potential or future dischargers to the JDWWTP collection system.

- i. The facility plan should examine several alternatives and rank those alternatives based on surveying Wastewater Utility Division employees, other CBJ employees, as well as other stakeholders.
- j. The facility plan shall provide a matrix of options for the JDWWTP including adapting the current systems and equipment as well as adding unit processes or constructing a new WWTP to meet the future needs of the defined service area. The facility plan shall have drawings of the proposed alternative process flow diagrams, process and instrumentation drawings and plant layout drawings and any other drawings required to fully define the alternatives proposed.
- k. The facility plan shall include a set of recommendations for immediate implementation to improve the operations, capacity and safety of the existing JDWWTP. This first stage investment plan (FSIP) shall include drawings and specifications of sufficient detail that the FSIP can be implemented by either the plant staff or outside contractors.

1.3.4. Facility Replacement Plan

The facility plan shall include a Facility Replacement Report that will be included as an appendix within the Facility Plan.

- a. Review current sources of potential financing for suggested improvements;
- b. Develop a draft facilities plan;
- c. Hold a meeting(s) with concerned parties to define and accept suggestions for the draft facilities plan;
- e. Develop project and construction costs for any additions, rehabilitation or improvements recommended;
- f. Define any additional sampling or monitoring recommended along with costs, frequency and uses of data collected;
- g. Estimate any additional chemicals, operation, supervisory or maintenance personnel required, if any, and provide conceptual level drawings of any suggested improvements;
- h. Provide a phased implementation plan that addresses immediate needs and long range planning; and
- i. Publish a final facilities plan that addresses concerns raised by the draft facilities plan.

1.4 Completion/Deliverables

The Consultant shall provide the following :

- a. An initial assessment of the project within 6 weeks of the issuance of Notice to Proceed (NTP),
- b. Final evaluation reports within 16 weeks of the issuance of NTP. The final evaluation reports will incorporate comments received from the Draft reviews.
- c. A Draft Facility Plan within 30 weeks of the issuance of the NTP,
- d. An approved Final Facility Plan within 40 weeks of the issuance of NTP.
- e. The Consultant shall provide an electronic version of the final document in .pdf and word format

1.5 **Questions**

Questions regarding this proposal shall be directed to:

Jennifer Mannix, Contract Administrator
City and Borough of Juneau
ENGINEERING DEPARTMENT
Marine View Center - 3rd Floor
230 South Franklin Street
Juneau, Alaska 99801

email: Jennifer_Mannix@ci.juneau.ak.us
Telephone: (907) 586-0873
FAX: (907) 586-4530

Office hours are 8:00 a.m. to 4:30 p.m. local time, Monday through Friday.

1.6 **Standard Contract Language**

Attached to this RFP is the CBJ standard contract (Attachment 2) which should be carefully reviewed by proposers, as it is the form of agreement that the CBJ intends that the selected Consultant sign in the event of acceptance of its proposal.

2.0 **RULES GOVERNING COMPETITION**

2.1 **Pre-Proposal**

2.1.1 Examination of the RFP

Proposers should carefully examine the entire RFP and any addenda thereto, and all related materials and data referenced in the RFP. Proposers should become fully aware of the nature of the services requested and the conditions likely to be encountered in performing the services.

2.2 **Proposal Development**

2.2.1 General

The content of proposals will be kept confidential until the selection of the Consultant is publicly announced. All materials submitted in response to this RFP will become the property of the CBJ. One copy shall be retained for the official files of the Engineering Department and will become public record after announcement of the successful Proposer. The CBJ will not return proposals to the Proposer. The CBJ reserves the right to reject any or all proposals.

2.2.2 Proposal Submission Process

Proposals are to be prepared in such a way as to provide a straightforward, concise delineation of the Proposer's capabilities to satisfy the requirements of this RFP. Emphasis should be concentrated on conformance to the RFP instructions, responsiveness to the RFP requirements, and on completeness and clarity of content.

This solicitation does not commit CBJ to select any Consultant(s) for the requested services. All costs associated with the respondents' preparations, submission and oral presentations shall be the responsibility of the Proposer.

All proposals must be signed. Proposals must be received in the number of copies stated in RFP cover letter not later than the date and time specified in the cover letter. All copies of the proposals must be under sealed cover and plainly marked. Proposals not received by the date and time specified in the cover letter will not be considered.

3.0 PROPOSAL CONTENT REQUIREMENTS

The response to this RFP shall be in letter form, not more than twenty (20) pages in length. The information requested below should be organized in the manner specified in order to achieve a uniform review process and obtain the maximum degree of comparability for the Selection Committee. Proposals should be organized in the manner specified below:

- a. Proposal Method to Accomplish the Project: Proposal shall demonstrate an understanding of the requested scope of services. Include proposed work schedule and methodology for accomplishing the project, showing insight to the specific details of the project.
- b. Organization and Capacity of the Firm: Identify the consultant team proposed for this project and demonstrate their ability to perform the desired services within the established schedule. The proposal should discuss the current workload of staff proposed for the requested services.
- c. Firm's Representation: The proposal shall specify readily available personnel to accomplish the desired services. Key personnel shall be named and their roles within the project clearly identified. Other project commitments of key personnel shall also be identified. The level of involvement should be displayed in a way which is consistent with the scale of the project. The qualification of personnel shall be included.
- d. Firm's Experience with Similar Projects: Proposal should include a list of projects of similar scale and scope, succinctly described.
- e. Firm's Hourly Rates: Evaluation will include the hourly rates of pay for personnel to be used on this project. Include a list of reimbursable expenses typical for this type of project. Hourly rates shall include all markups and multipliers.
- f. Quality of the Proposal: Evaluation will include the clarity and professional quality of the document(s) submitted.
- g. Licenses: Professional registration (Engineer/Architect/Land Surveyor/Landscape Architect) in the State of Alaska at the time of the proposal submission is required (Alaska Statute 08.48.281). If a corporate license is held, the professional licensed in the State of Alaska (in order to obtain a corporate license) must be in responsible charge of the project, as well as the professional stamping the work. All survey work involving property or boundary surveys must be stamped by a Professional Land Surveyor licensed in the State of Alaska. All reports prepared by a registered professional licensed in the State of Alaska must be stamped by the registered professional. The proposal must include a

statement indicating that all required corporate, all required professional occupational licenses and all other necessary licenses/certificated are currently held. License/certification numbers must be provided.

- h. Acknowledge Receipt of all Addenda: Failure to acknowledge addenda may result in the proposal being considered non-responsive and subject to rejection.
- i. Juneau Proposer according to SECTION 7.0
- j. Proposal Signature: The proposal must be signed by a representative who has authority to bind the firm. Name and title of the individual signing the proposal must be below or adjacent to the signature.
- k. Resumes: Resumes may be attached to the proposal as appendices and will not be included in the page count for proposals.

4.0 EVALUATION OF PROPOSALS

4.1 Criteria

Proposals will be evaluated and scored, using the criteria on the EVALUATION/RANKING page, found at the end of this document, in order to ascertain which proposal best meets the needs of the CBJ. The items to be considered during the evaluation and the associated point values are located on the EVALUATION/RANKING sheet at the end of this sheet.

4.2 Evaluation Data

The Evaluation Data discussed below is presented in an effort to delineate what criteria will be used to score proposals. Please do not include a separate section in your proposal for Evaluation Data. Much of the information discussed and requested below should be included in the proposal as part of the Proposal Content Requirements discussed in Section 3.0 of this RFP.

4.2.1 Proposed Method to Accomplish the Project

Work schedule and methodology will be evaluated according to budget sensitivity, efficiency, completeness and pertinence of the tasks submitted by the Proposer, as well as the creativity and logic of the overall approach. The proposal should show interest and insight to the specific project.

4.2.2 Organization Capacity of the Firm and Personnel Qualifications

- a. Evaluation will be made on the Proposer's organization and the ability to perform the desired services within the established schedule.
- b. Evaluation will be made based on proposed personnel, their relevant qualifications and experience, and their proposed scale of involvement.

4.2.3 Relevant Experience and Past Record of Performance

Evaluation will be made of the Proposer's experience with projects of similar scope and scale, as well as other projects with CBJ, other government agencies and private industry. Detailed references including companies, specific contact persons and their phone numbers and locations should be provided.

4.2.4 Firm's Hourly Rates

Evaluation will be made on the proposed hourly rates of pay for personnel to be used on this project.

4.2.5 Quality of the Proposal

Is proposal clear and concise? Is proposal responsive to the needs of the project? Evaluation will include the clarity and the professional quality of the document(s) submitted.

4.2.6 Juneau Proposer according to Section 7.0

Prime Consultant meets Juneau Proposer requirements as stipulated in Section 7.0 – Juneau Proposer Points.

4.3 Evaluation Process

Evaluation of the proposals will be performed by a committee selected by the City and Borough of Juneau. The intent of the CBJ is to make award based on written proposals.

5.0 SELECTION AND AWARD PROCESS

An evaluation committee will review, evaluate, score, and rank proposals, in accordance with criteria identified below and the Evaluation/Ranking sheet located at the end of this RFP. Clarification of submitted material may be requested during the evaluation process. Interviews by telephone with the top ranked Proposers may also be conducted at the discretion of the evaluation committee. If necessary, in-person interviews will be conducted. Finalists will be notified and informed of the interview requirements. In the event of a tie in the ranking totals, only the raw scores of the Proposers who are ties will be invited to enter into contract negotiations with CBJ.

If negotiations are unsuccessful, discussions with the lowest ranked Proposer will be terminated and the second lowest ranked Proposer may be contacted for negotiations.

Selection of the successful Proposer is anticipated to be announced within 15 calendar days of the submission date, although all offers must be complete and irrevocable for 60 days following the submission date.

Award of contract, if made, will be to the responsible Proposer selected in accordance with the criteria described in Section 4 of this RFP, and whose final proposal and fee is accepted by the CBJ.

The CBJ reserves the right to award the contract solely on the basis of written proposals and reserves the right to award the contract to the successful firm without further discussion.

6.0 INSURANCE REQUIREMENTS

The insurance requirements for this project are specified in Attachment 1 – Sample Contract, under Appendix C.

7.0 JUNEAU PROPOSER POINTS

Juneau proposer points shall be awarded if the Proposer is determined to be a “Juneau proposer” meeting the criteria of CBJ’s Purchasing Ordinance 53.50, Section 53.50.010. CBJ Ordinance 53.50 can be viewed electronically at the following internet address: www.juneau.org/law. **Note:** *The criteria for meeting Juneau Proposer requirements have changed. Please review the new requirements and contact the CBJ Engineering Department or Purchasing Division with any questions.*

A paper copy of the CBJ Purchasing Ordinance is available upon request from the CBJ Engineering Department or Purchasing Division.

8.0 PROTESTS

The protest period begins with the posting of a notice of apparent successful proposer, in the CBJ Purchasing Division.

Protests shall be executed in accordance with CBJ Ordinance 53.50.062 PROTESTS and 53.50.080 ADMINISTRATION OF PROTEST. Copies of the ordinances describing protest procedures are available from the CBJ Purchasing Division, 155 South Seward Street, Juneau, Alaska. Questions concerning protests or protest procedures should be directed to the CBJ Purchasing Officer, at 586-5258. CBJ Ordinance 53.50 can be viewed electronically at the following Internet address: <http://www.juneau.org/law/code/purchasing.pdf>.

9.0 JUNEAU BUSINESS SALES TAX AND PERSONAL PROPERTY TAX

Vendors/merchants conducting business within the City are required by law to register with, and periodically report to, the City for sales and property taxes. Consultants and Sub-consultants must be in good standing with the City prior to award, and prior to any contract renewal and in any event no later than five business days following notification by the City of intent to award or renew. **Good standing** means: all amounts owed to the City are paid in full, including Confession of Judgments; and vendor/merchant is current in reporting (sales tax filings, business personal property declarations). Failure to meet these requirements, if so subject, shall be cause for rejection of your proposal and/or contract renewal. To determine if your business is in good standing, or for further information, contact the City Finance Department’s Sales Tax Division, at (907) 586-5265, concerning sales tax and/or Treasury Division, at (907) 586-5268, concerning business personal property and real property tax. *Note: Juneau Proposer preference has requirements regarding a firm’s good standing with the City at the time a proposal is submitted. Please review the Purchasing Code cited.*

EVAULATION/RANKINGSHEET

CONSULTING FIRM: _____

SCORED BY: _____ **DATE:** _____

EVALUATION/RANKING

POINTS AWARDED

Points
Possible Score

4.2.1 Proposed method to accomplish the project. 0 - 20 _____

4.2.2 Organization, Capacity of Firm and Personnel Qualification

 a. Organization and ability to perform services within desired schedule. 0 - 20 _____

 b. Experience of proposed personnel and scale of involvement 0 - 20 _____

4.2.2 Relevant Experience and Past Record of Performance 0 - 25 _____

4.2.3 Proposed Hourly Rates 0 - 5 _____

4.2.4 Quality of Proposal 0 - 5 _____

Subtotal _____

The Engineering Contact Administrator will assign points for criterion 4.2.5 below.

4.2.5 Juneau Proposer (according to Section 7.0). 0 - 5 _____

TOTAL POINTS 100 _____

INDIVIDUAL RANKING _____

ATTACHMENT 1

Technical Inspection Summary

Juneau Douglas Wastewater Treatment Facility

Inspection Date: September 28, 2011

Inspection Team: Jim MacInnis, P.E. (lead)
Wade Strickland
Joran Freeman
Sally Wanstall
Jess Parks

CBJ Staff: Tom Trego
Denny Kay
Cort Franklin
Nathan McCombs

Introduction

The Juneau-Douglas Wastewater Treatment Facility (JDWWTF) is typical of many Alaskan wastewater treatment plants designed and built in the early to mid 1970s. It is owned and operated by the City-Borough of Juneau (CBJ). Treatment process elements include: headworks, dual aeration basins, dual secondary clarifiers, disinfection, solids digester, solids dewatering, and an incinerator (not functioning.) See attached Figure 1. Conspicuous in its absence from the process element list is a primary clarifier. The disinfection, solids dewatering and incinerator process element were added or upgraded after the original construction.

The purpose of the inspection was to conduct a technical/engineering inspection of the treatment plant. In the absence of any compliance or enforcement related aspects to the inspection, it was hoped that the treatment staff would be more open to frankly discussing plant's operation.

Entry

Weather: overcast, windy with light to moderate rain. The Inspection Team arrived at the facility office at 9:00 am. After brief introductions, the Inspection Team lead explained to the CBJ staff that the inspection was for the purpose of a technical evaluation of their facility, rather than for compliance. The inspection ended approximately 10:30 am. It was decided that the inspection would follow the wastewater flow through the plant. Accordingly, the first process visited was the headworks.

Headworks

The headworks area is located immediately adjacent (east) to the office. (See attached pictures 1-5.) The main headworks basin is an open top concrete structure. On the west and east walls of this basin are large cracks (about five feet in length) that extend top to bottom and that continue into the concrete floor. These cracks are pinned with steel plates (see picture 1). CBJ representatives stated that the cracks are the result of foundation settlement that occurred soon after construction. Grit removal system moves the material from the basin east to a partitioned area where it is collected into a bin (see picture 4). No bar screens were observed. Evidence of wear, age and rusting on machinery and structural elements were observed in the headworks area.

Aeration Basins

The facility has two 75' by 145' (quarter acre) covered "aeration" basins (see picture 6.) Entry was made to the west basin. CBJ staff stated that the basins were about 17 feet deep, but the bottom had collected about 5 to 6 feet of solids (thought to be mostly sand). Aeration was by mechanical agitation near the center. Observations included:

- Walkway and maintenance access near the agitators has deteriorated. We proceeded only partway to the agitators on the walkway after being warned about our safety. Corrosion was noted at several locations inside and outside the building.
- The effectiveness of oxygen transfer through the agitation was questioned. Large portions of the basin waters were calm; sufficient aeration to support a healthy population of aerobic bacteria may not be present.
- When considering the large amount of solids accumulation, the "aeration" basin appears to be functioning as a primary clarifier.

Clarifiers

The facility has two covered clarifiers approximately 65 feet in diameter located adjacent to each other between the aeration basin buildings. The clarifiers are plumbed to waste sludge to the digester and to return activated sludge to the aeration basins. The clarifiers and supporting elements appeared to be in better physical condition than the headworks and aeration basins.

Disinfection

The facility uses ultraviolet (UV) light to disinfect the wastewater. The disinfection building is located immediately south of the clarifiers between the aeration basins. The wastewater flow was high because of the recent and on-going rain according to CBJ staff. Observations included:

- The wastewater effluent contained thousands of small (quarter to one inch diameter) white floating debris; some of these floating particles are visible in picture 10.

- The fine mesh screens located before the UV lights had been removed by CBJ staff to prevent clogging. Evidently screen removal is a common practice during high plant flows.
- The efficacy of UV disinfection of effluent with high solids content is questionable; it is highly likely that permitted disinfection levels were not being achieved during this inspection.

Digester

The digester building was entered briefly. No comments or observations were noted.

Solids Handling

The facility has an incinerator building that began operation in 1992 with a 15 to 20 year expected life. The incinerator is presently closed and needs major repairs (1.5 to 3.0 million dollars estimated). The building also houses solids handling: polymer injection (picture 12) and a belt filter press (picture 13). Dewatered sludge is containerized and shipped out of state for disposal. The building is in excellent condition and appears well-maintained.

General Comments

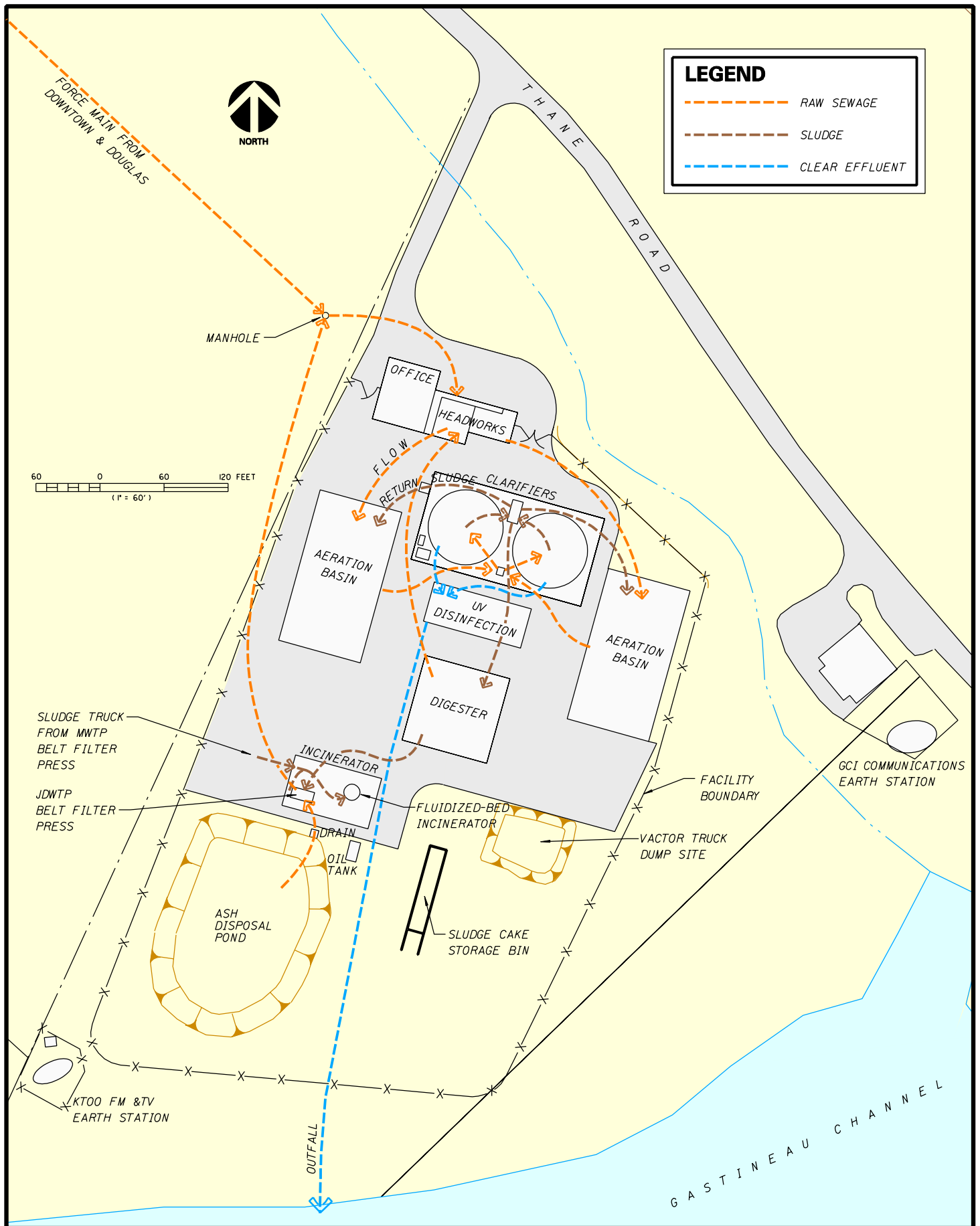
1. Average life expectancy of domestic wastewater treatment facilities ranges from forty to fifty years. Accordingly, most of the main elements of the JDWWTP are nearing the end of their useful life; in the next two decades most of the unit processes at the JDWWTP will need major reconstruction or replacement.
2. The deferred maintenance observed at the plant during this inspection points towards a pattern of intentional neglect by CBJ. Deferred maintenance creates challenges for plant operation and will likely shorten the plant's useful life.
3. Given the dual challenges of deferred maintenance and poor plant design, it is a credit to the skill and dedication of the facility operations staff that the plant operates as well as the monitoring data indicates.

Recommendations

The JDWWTP has serious issues that need immediate attention. Recommendations are provided below for four areas of concern: maintenance, operations, facility planning, and facility replacement.

1. Maintenance. The CBJ will select a qualified consultant to perform a Facility Maintenance Evaluation Report. This report will be presented, adopted and implemented by the CBJ. It should contain, but not be limited to, the following:
 - a) A complete maintenance evaluation of each unit treatment process.
 - b) A list of all mechanical units (pumps, motors, pipes, etc.) that includes condition, age and estimated useful life.

- c) A maintenance schedule for each unit treatment process that identifies required activities, frequency and costs.
 - d) A five year capital (over \$5,000 value) replacement chart that identifies the year and cost for estimated equipment replacement.
 - e) An estimate of the staff requirements to properly maintain all unit processes at the facility.
2. Operations. The CBJ will select a qualified consultant to perform a Facility Operations Evaluation Report. This report will be presented, adopted and implemented by the CBJ. It should contain, but not be limited to, the following:
- a) A complete operations evaluation of each unit treatment process that includes efficiency and effectiveness for each. The evaluation should be performed for a variety of conditions including dry weather, wet weather and snow melt.
 - b) Recommendations for improving the efficiency of each unit process.
 - c) An operations manual for each unit treatment process that identifies required activities for specific conditions.
 - d) An estimate of the staff requirements to properly operate all unit processes at the facility.
3. Facility Planning. The CBJ will select a qualified consultant to perform a Facility Plan for the JDWWTP. This plan will be presented, adopted and implemented by the CBJ. It should contain, but not be limited to, the following:
- a) Inflow and infiltration reduction.
 - b) Combined sewer overflow mitigation.
 - c) Population projections and flow estimates for the net twenty years.
 - d) Evaluation of the condition and useful life of each unit treatment process.
 - e) Five-year and twenty-year capital improvement plans for the facility.
4. Facility Replacement. . The CBJ will select a qualified consultant to perform a Facility Replacement Report that will be included as an appendix to the Facility Plan described above. This report will be presented, adopted and implemented by the CBJ as part of the Facility Plan. It should contain, but not be limited to, the following:
- a) Estimated useful life of the existing facility.
 - b) General options and estimated costs for replacing or reconstructing the facility
 - c) A timeline for each option indicating major project milestones and identifying the start date.





1. Juneau WWTP headworks

2. Juneau WWTP headworks top view





3. Juneau WWTP headworks trough

4. Juneau WWTP grit bin





5. Juneau WWTP headworks



6. Juneau WWTP aeration basin

7. Juneau WWTP secondary clarifier





8. Juneau WWTP secondary clarifier

9. Juneau WWTP UV disinfection





10. Juneau WWTP UV disinfection

11. Juneau WWTP effluent monitoring





12. Juneau WWTP solids polymer system

13. Juneau WWTP belt filter press





ENGINEERING DEPARTMENT

ATTACHMENT 2

PROFESSIONAL SERVICES CONTRACT WASTEWATER PLANT DOCUMENT UPDATES Contract No. RFP E13-033

This Agreement is entered into by and between the City and Borough of Juneau, Alaska ("City"), and _____ company name _____ whose address is _____ phone and fax _____ ("Consultant").

Witnesseth:

Whereas, the City desires to engage the Consultant for the purpose of rendering certain professional services, and

Whereas, the Consultant represents that it is in all respects licensed and qualified to perform such services;

Now, Therefore, the parties agree as follows:

1. CONTRACTUAL RELATIONSHIP. The parties intend that an independent Consultant/City relationship will be created by this Contract. City is interested only in the results to be achieved, and the conduct and control of the work will lie solely with the Consultant. Consultant is not considered to be an agent or employee of City for any purpose, and the employees of Consultant are not entitled to any benefits that City provides for City's employees. It is understood that the City does not agree to use the Consultant exclusively. It is further understood that the Consultant is free to contract for similar services to be performed for others while it is under contract with the City.

2. SCOPE OF SERVICE. The Consultant shall carry out in a professional and prudent manner all of the services required by the Contract. These services include all of the services described in Appendix A. Consultant will diligently proceed with the Scope of Services, and will provide such services in a timely manner.

3. PERSONNEL, EQUIPMENT, SUPPLIES, AND LICENSES.

(A) Except as noted in Appendix A, the Consultant represents that it has or will secure at its own expense all personnel, equipment, and supplies required in performing the services under this Contract.

(B) All of the services required hereunder will be performed by the Consultant or under its supervision.

(C) None of the work or services covered by this Contract shall be subcontracted without prior written approval of the Contract Administrator.

(D) Consultant warrants that it is fully licensed under all applicable local, state, and federal laws to perform the services to be provided hereunder.

4. TIME OF PERFORMANCE. The services of the Consultant are to commence after the execution of the Contract and issuance of Notice to Proceed and Purchase Order. All work shall be completed no later than the time specified in Appendix A. Amendment to this Contract may be made upon mutual, written agreement prior to the contract expiration date.

5. REPORTING. Except as authorized within Appendix A, the City's primary representative for this Contract shall be Jim Heumann, P.E. The City Manager shall be an alternate representative. The City shall not be liable for Consultant's expenses incurred in reliance on directions received from any other municipal officer or employee. The Consultant's representative shall be _____.

6. COMPENSATION. The City agrees to pay the Consultant according to the schedule attached as Appendix B. The Consultant's estimated fee schedule is attached to Appendix B.

7. TERMINATION OF CONTRACT FOR CAUSE. If, through any cause, except causes beyond the control of the Consultant, the Consultant shall fail to fulfill in a timely and proper manner its obligations under this Contract; or if the Consultant shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall have the right to terminate this Contract by giving written notice to the Consultant of such termination and specifying the effective date thereof, at least ten days before the effective date of such termination. In that event, all finished or unfinished documents, or other data, in whatever form, prepared by the Consultant under this Contract shall, at the option of the City, become its property, and the Consultant shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and materials, not to exceed the Contract amount.

8. TERMINATION FOR CONVENIENCE OF CITY. The City may terminate this Contract at any time by giving written notice to the Consultant of such termination and specifying the effective date thereof, at least thirty days before the effective day of such termination. In that event, all finished or unfinished documents and other materials as described in paragraph 7 above shall, at the option of the City become its property, and the Consultant will be paid an amount not to exceed the sum set forth in Appendix B for work satisfactorily completed on or before the date of termination, less payments of compensation previously made.

9. CONTRACT AGREEMENT. All parties mutually agreed to the terms of this Contract. The Contract should not be construed in favor of or against any party. This Contract contains the entire agreement between the parties; there are no other promises, terms, conditions, or obligations other than those contained herein; and this Contract shall supersede all previous communications, representations or agreements, either oral or written, between the parties.

10. CHANGES. The City may, from time to time, require changes in the scope of services to be performed under this Contract. Such changes, including any increase or decrease in the amount of the Consultant's compensation, must be mutually agreed upon in writing before they will be regarded as part of this Contract.

11. EQUAL EMPLOYMENT OPPORTUNITY. The Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.

12. CONFLICTS OF INTEREST. Consultant agrees that no employee of the City who has exercised or will exercise any authority over the specifications, procurement, supervision or payment for this Contract, and no member of the employee's immediate family, has had or will have any direct or indirect financial interest in this Contract. If the Consultant learns of any such

interest, the Consultant shall without delay inform the City Attorney or one of the officers specified in Paragraph 5.

13. ETHICS. Consultant shall discharge its duties fairly, impartially and maintain a standard of conduct that competently serves the City and the interests of the City. Consultant shall at all times exercise unbiased judgment when performing its duties under this contract.

14. PUBLIC RELATIONS. Consultant shall issue press releases, respond to press inquiries, make public speeches, appear on broadcast media or otherwise engage in public relations regarding the project only with the specific approval of the CBJ Project Manager.

15. ELECTED OFFICIALS. The Consultant shall respond to project-related inquiries from elected officials by providing impartial, factual information, but shall not initiate contact or attempt to persuade an elected official to agree with any viewpoint or to take any official action. The Consultant will promptly notify the Project manager of any request by an elected official for project-related information.

16. ASSIGNABILITY. The Consultant shall not assign any interest in this Contract and shall not transfer any interest in the same without the prior written consent of the City; however, claims for money due or to become due to the Consultant from the City under this Contract may be assigned to a bank, trust company, or other financial institution without approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

17. FINDINGS CONFIDENTIAL. Any information given to or prepared by the Consultant under this Contract which the City requests to be kept as confidential shall not be made available to any individual or organization by the Consultant without the prior written approval of the City.

18. IDENTIFICATION OF DOCUMENTS. All reports, maps, and other documents completed as a part of this Contract, other than documents exclusively for internal use within the City, shall carry a City notation or logo as directed by the City.

19. PUBLICATION, REPRODUCTION, AND USE OF MATERIALS. No services, information, computer program elements, reports or other deliverables which may have a potential patent or copyright value produced in whole or in part under this Contract shall be subject to copyright in the United States or any other country.

If a copyright applies by law to the work produced under this Contract, that copyright will either be signed over to the City or the City will be given unrestricted license to the copyright. The City shall have unrestricted license to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data, or other materials prepared under this Contract. If this Contract includes architectural and/or engineering design services, any use of the design features or details produced under this Contract on other City facilities will be at the City's risk.

20. RECORDS. During performance and after termination of this Contract, each party shall make available to the other party for inspection and copying, all records, whether external or internal, having any relevance to this Contract.

21. INSURANCE REQUIREMENTS. The Consultant has secured and shall maintain insurance for the risks and in the amounts specified in Appendix C. The Consultant and its insurance carrier waive subrogation against the City, except Workers Compensation and Professional Liability.

APPENDIX A: SCOPE OF SERVICES
Wastewater Plant Document Updates
Contract No. RFP E13-033

See Scope of Services in RFP .

PERSONNEL: The Consultant's primary personnel for this work will be:

The completion date for this project is _____/

This contract expires on _____, unless an amendment changing this date is fully executed prior to _____.

STANDARD CONTRACT

APPENDIX B: COMPENSATION
Wastewater Plant Document Updates
Contract No. RFP E13-033

Amount of Payment

Lump Sum

Consultant shall be compensated a lump sum amount of \$_____ for satisfactory performance of all [or specific services] services described in this contract.

Time and Materials

Consultant shall be compensated based on time and materials, a not-to-exceed amount of \$_____ for satisfactory performance of _____ services described in this contract.

Hourly rates shall remain the same for the life of this contract including all amendments, unless the Consultant requests a rate increase. Hourly rate increases may be negotiated on a yearly basis and shall not exceed the percentage increase of the Anchorage Consumer Price Index.

The total Contract amount shall be \$_____

Method of Payment

Monthly Payable within 30 days of receipt of an invoice approved by the project manager and progress report stating the amount of services completed.

Consultant Invoice Requirements

- Itemized invoices must be submitted that indicate the services performed.
- Invoices for this contract must be submitted separately from invoices for services performed under any other contract(s).
- Invoices must include the CBJ Contract Number and Purchase Order numbers.

Compensation Based on Time and Materials

If compensation is based on time and materials, the following shall apply:

Compensation shall be computed based on the hourly billing rates, approved by the CBJ Project Manager, times the actual number of hours spent in the performance of services. The hourly billing rate for each employee is the amount to be paid to the Consultant, and is full compensation for all salary, benefits, taxes, overhead and profit. There shall be no additional compensation for overtime, weekend, or holiday work.

Compensation for subconsultants shall be equal to the amounts actually paid to sub-consultants hereunder plus a negotiated mark-up percentage.

Compensation for expenses shall be an amount equal to reimbursable expenses approved in advance by the CBJ Project Manager, necessary and reasonably incurred and actually paid by

the Consultant in the performance of the services hereunder. No markup allowance is allowed. Reimbursable expenses are expenses that are unique to the performance of the services under the Contract and generally contemplate the purchase of outside ancillary services, such as mailing and delivery charges for submittal of drawings, specifications and reports, long distance telephone calls, rentals of equipment, travel and local transportation, meals and lodging on overnight trips.

Reimbursable expenses do not include expenses that are usually and customarily included as part of the Consultant's overhead. For the purposes of this Agreement reimbursable expenses do not include amounts for typing, utilization of computer systems, computer aided design and drafting (CADD), cameras, recording or measuring devices, flashlights and other small, portable equipment, safety supplies, phones, telephone calls, electronic messaging including FAX, Telex and telegrams, or expendable office supplies. Unless otherwise indicated, required insurance is not a reimbursable expense.

The Consultant shall obtain the CBJ Project Manager's written approval prior to making expenditures for reimbursable expenses in excess of \$500 per specific expenditure and for all overnight trips which are reimbursable expenditures as set forth above. The Consultant shall substantiate all billings for reimbursable expenses in excess of \$25 with receipted bills and provide said receipts with the appropriate billing.

The Consultant shall keep, and cause any sub-consultants to keep, daily records of the time spent in the performance of services hereunder by all persons whose billing rates will be the basis for compensation as well as records and receipts of reimbursable expenditures hereunder. Failure to do so shall be a conclusive waiver of any right to compensation for such services or expenses as are otherwise compensable hereunder.

The CBJ shall have the right to inspect all records of the Consultant, and of any sub-consultants, pertaining to this project. Records shall be maintained by the Consultant and sub-consultants for a period of three years after completion of services.

When travel is necessary as part of the professional services to be provided, the following shall be followed:

- ◆ Airline tickets should be purchased at the 14 day advanced purchase price. The CBJ will not pay for First Class travel. Any deviation shall be approved in writing in advance by the CBJ Project Manager.
- ◆ Per diem meal allowance shall be: \$50.00 (\$10.00 for breakfast, \$15.00 for lunch and \$25.00 for dinner).
- ◆ The Consultant shall stay at the hotel with a daily rate not to exceed \$125.00.
- ◆ Travel agent fees, tips, alcohol or bar tabs shall not be paid by the CBJ.
- ◆ Car rental, parking, and taxi fees shall be reasonable and not excessive. This reimbursement is for services in Juneau only. Parking fees, etc. outside of Juneau will not be reimbursed.

APPENDIX C: INSURANCE REQUIREMENTS
Wastewater Plant Document Updates
Contract No. RFP E13-033

The Consultant must provide certification of proper insurance coverage or binder to the City and Borough of Juneau. The certificate of insurance supplied to the City shall state that the City is named as “**Additional Insured for any and all work performed for the City & Borough of Juneau.**” The Additional Insured requirement does not apply to Professional Liability and Workers Compensation insurance. Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. The City no longer requires certificates of insurance referencing project names and contract numbers. Proof of the following insurance is required before award:

Commercial General Liability Insurance. The Consultant must maintain Commercial General Liability Insurance in an amount it deems reasonably sufficient to cover any suit that may be brought against the Consultant. This amount must be at least one million dollars (\$1,000,000.00) per occurrence, and two million dollars (\$2,000,000.00) aggregate.

Professional Liability Insurance. The Consultant must maintain Professional Liability Insurance in an amount not less than one million dollars (\$1,000,000.00) aggregate to protect the Consultant from any claims or damages for any error, omission, or negligent act of the Consultant, the Consultant's firm and employees. This requirement applies to the Consultant's firm, the Consultant's subcontractors and assignees, and anyone directly or indirectly employed to perform work under this contract.

Workers Compensation Insurance. The Consultant must maintain Workers Compensation Insurance to protect the Consultant from any claims or damages for any personal injury or death which may arise from services performed under this contract. This requirement applies to the Consultant's firm, the Consultant's subcontractors and assignees, and anyone directly or indirectly employed to perform work under this contract. The Consultant must notify the City as well as the State Division of Workers Compensation immediately when changes in the Consultant's business operation affect the Consultant's insurance status. Statutory limits apply to Workers Compensation Insurance. The policy must include employer's liability coverage of one hundred thousand dollars (\$100,000.00) per injury, and five hundred thousand dollars (\$500,000.00) policy limits.

Comprehensive Automobile Liability Insurance. The coverage shall include all owned, hired, and non-owned vehicles to a one million dollar (\$1,000,000.00) combined single limit coverage.

Each policy shall be endorsed to waive all rights of subrogation against the City by reason of any payment made for claims under the above coverage, except Workers Compensation and Professional Liability.