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# Request for Qualifications:

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## City of Dawson Wastewater Treatment Project

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**City of Dawson &  
Yukon Department of Highways and Public Works**

**September 19, 2008**

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# 1. Introduction

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The City of Dawson and the Government of Yukon (Government), represented by the Department of Highways and Public Works (HPW), are seeking to have a Dawson City mechanical wastewater treatment facility designed, built and operated in a sustainable manner for a period of 25 years or more. The term *sustainable* describes the capacity for a mechanical system to treat Dawson City wastewater in a manner that:

1. is compliant with current federal regulations (*Fisheries Act*) and responsive to potential future regulatory changes;
2. addresses current and future municipal and territorial fiscal capacities;
3. minimizes the risk of service interruption regarding the sourcing of material supplies and parts, maintenance requirements, and knowledge and operational support;
4. fundamentally addresses the challenges associated with wastewater treatment in a northern, isolated region of Canada.

This Request for Qualifications (RFQ) is stage one of a two-stage Procurement Process. The purpose of this RFQ is to provide a fair and open process for interested parties to have their qualifications evaluated using pre-determined criteria. At the end of this procurement stage, Dawson City and HPW may select the highest evaluated Respondents to participate in the Request for Proposals (RFP) stage.

The RFP will address the development of a Dawson City mechanical wastewater system whereupon respondents may choose to provide “design-build” or “design-build-operate” services. Respondents choosing not to provide ongoing operating and maintenance services will be required to verify their capacity to ensure that a sustainable solution will be provided with respect to the above four points.

This RFQ is not a tender or an offer or a request for proposals, and there is no intention by the City of Dawson or Government to make an offer by releasing this RFQ. Information materials compiled and included in this RFQ are presented to the Respondent in order to assist their development of a Response Submission.

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## 1.1 Document Overview

The remaining components of **Section 1** of this document provide a description of the project procurement process, project objectives, background historical and technical issues, and selected technical information. **Section 2** outlines the evaluation and selection criteria while **Section 3** details the requirements for responding to this RFQ. **Section 4** and subsequent sections provide additional details of the conditions and requirements of the RFQ submission process.

## 1.2 Procurement Process

The Procurement Process entails two stages: an RFQ stage followed by an RFP stage. During the RFQ stage, Respondents will be evaluated based on their technical and experiential qualifications and their vision for undertaking the Project. The highest evaluated Respondents may be short listed for the RFP stage.

### 1.2.1 RFQ Stage

The objective of the RFQ stage is to select the highest evaluated Respondents who have successfully demonstrated their experience, capability, and capacity to design and build a mechanical wastewater treatment facility in Dawson City on-time and on-budget, and have shown that they have a vision and project understanding that will lead to proposals meeting the Project Objectives (**Section 1.3**)

The evaluation process will focus on four categories of Respondent competencies and capabilities:

1. Background and experience addressing wastewater treatment solutions in a sustainable manner, especially in the context of a small, northern municipality.
2. Technical competencies and capabilities that addresses various project components including, but not limited to the following:
  - a. Mechanical sewage treatment design
  - b. Permitting and regulatory compliance
  - c. Construction
  - d. Community liaison and consultationsAnd optionally,
  - e. Ongoing Operations and Maintenance (with or without price guarantees)
3. Project vision and understanding

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## 1.3 Project Objectives

The project will be deemed successful by adequately addressing the following objectives:

1. A mechanical wastewater treatment facility is designed and built and relevant system upgrades are completed to ensure municipal wastewater effluents meet regulatory requirements. **Note:** Wastewater treatment must address current Canadian regulatory requirements under the *Fisheries Act* s.36(3) and possible future regulatory changes in reference to documentation and dialogue associated with the *Canada-wide Strategy For Managing Municipal Wastewater Effluents* (Council of Ministers of the Environment, 2006).
2. Activities related to permitting and regulatory compliance are addressed in a timely and comprehensive manner. **Note:** A team approach between contracted parties, the City of Dawson and the Yukon Government is envisioned.
3. Measures are undertaken to adequately protect Yukon's natural environment and ensure that public safety is a primary consideration in the development and operation of a Dawson City wastewater treatment facility.
4. The facility applies proven and serviceable technologies in addressing relevant wastewater discharge requirements. **Note:** Proven technologies shall address relevant Dawson-area climatic, biological, hydrological, geological, and social characteristics. Serviceability encompasses long-term access to relevant human and corporate resources, material supplies and parts sourcing, and knowledge and operational support.
5. Commitments are fulfilled on behalf of the City of Dawson and the Government to meaningfully consult and communicate with the residents of the City and the Tr'ondëk Hwëch'in First Nation.
6. The project will necessarily address fiscal capacities and realities for both the City of Dawson and the Government. Capital expenditures will largely be the responsibility of the Government while ongoing operating and maintenance (O&M) costs will largely be borne by the City of Dawson.
7. The project will take into consideration, where practical, the outcome of technical studies and project-related undertakings of the private sector and municipal and territorial government officials to date.
8. Where possible and pragmatic, economic development in Dawson City and the Klondike region will be enhanced through the provision of business opportunities to

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local and Yukon-based private sector enterprise. Where possible and practical, employment opportunities will be directed toward the residents of Dawson and Yukoners.

## 1.4 Background

While Dawson City's status as a gold town still lingers 110 years after the Klondike Gold Rush, the percentage of the municipal population involved in placer mining is now about 8% (2004 figures). Yukon placer gold production did, however, increase by an annualized 9.7% in 2007 to 63,929 crude ounces of production valued at \$38.1 million. The Klondike history and the natural beauty and bounty of the region have boosted the municipality's accommodations and food services sector into a position of prominence, employing about 17% of the Dawson City workforce. Government Services (17%), health (6%) and education services (4%) also employ a significant portion of the municipal labour pool.

Given the relatively small presence of industry in Dawson City, related services can be difficult to source locally, requiring effective linkages to suppliers and year-round accessible shipping routes. By vehicle, Dawson City is 2,523 km from the nearest major city (Edmonton) and 3,119 km from Vancouver. Dawson City is 530 km from the city of Whitehorse and 710 km from the ice-free, deepwater port of Skagway, Alaska. In late August 2008, the washout of a key section of the Klondike Highway demonstrated the potential for supply chain disruptions to occur in the region. Cold weather and labour shortages can also be problematic in ensuring continuous business of mechanical/facility operations.

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The history of water and wastewater management in Dawson City is as long as it is dynamic. This history dates back to the early 1900s when a few residents had access to water and wastewater infrastructure. Up to a point as late as 1970, wooden stave pipes and steam were used to provide water and wastewater services to city residents. With the application of increasingly stringent federal regulations, Dawson eventually found itself in a position of non-compliance with regards to the toxicity of its wastewater discharge. Charged in 2003 for releasing "deleterious" substances into fish bearing waters on August 16, 2000, the city has had to commit to the development of secondary wastewater treatment that meets with the requirements of federal wastewater regulations.

The City of Dawson is located on the eastern bank of the Yukon River and is situated only a few latitudinal degrees south of the Arctic Circle. The current population of the city is 1,889 (Yukon Government figures June 2008). Applying a population growth rate of 1.17% (as

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observed over the past four years), Dawson's population could grow to 2,400 within 20 years and 3,500 within 50 years. While the scope and scale of a wastewater treatment facility in the city will necessarily address the current population and its potential rate of growth, wastewater requirements based on the population count must be skewed upward to account for both the use of bleeders that prevent winter freezing, and the significant influx of tourists and workforce in the summer months.

#### 1.4.1 Wastewater Treatment in Dawson City from 1983 to Date

Dawson City was granted a 10-year water license in 1983 that required its sewage effluent to be in compliance with federal regulations (compliance or non-compliance being determined through a 96 hour LC<sub>50</sub> bioassay toxicity test). In subsequent years, "Dawson's wastewater discharge periodically failed the tests for toxicity (LC<sub>50</sub>), which was and is the primary rationale for the development of a new wastewater treatment plant." (EarthTech, 2007)

Dawson City thus began planning for the development of a sewage treatment facility in the early 1990's. More than 100 options were reportedly developed for discussion and short-listing. Between 1992 and 1999, a variety of project work was done for Dawson by Shiltec Alaska Limited and other consulting specialists. This work addressed three approaches to wastewater management: mechanical treatment (sequential batch reactor or SBR) and anaerobic and aerobic lagoon treatment. The firm purported that space limitations, First Nation land claims and high capital costs ruled out the development of anaerobic lagoons. The company recommended the development of a sequential batch reactor (SBR) wastewater treatment facility with an estimated 1997 capital cost of \$7.5 million and O&M costs of \$451 thousand.

In September 1999, the city signed a Capital Funding Agreement (CFA) for the construction of a \$5.3 million facility with an annualized O&M of \$203 thousand based on components of conceptual cost estimates prepared by Shiltec. The Yukon Government was set to cover 90% of the costs with Dawson City absorbing the remaining 10%. Various necessary components were subsequently added to the project leading to major cost increases. In the fall of 1999 Shiltec ceased operations in Dawson City and was no longer available to provide services related to the development of an acceptable wastewater treatment system.

With limited changes to the composition of the city's wastewater effluent, Dawson City was charged under Section 36(3) of the *Fisheries Act* for "depositing a deleterious substance in the Yukon River" on August 16, 2000. (Various court documents and proceedings are available on-line with key references in the bibliography—Section 1.4.5.) The pressure to find a wastewater solution was intensified, leading to the hiring of additional consultants and

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additional efforts forthcoming from staff representing both municipal and territorial governments.

In March 2001, a project manager was hired by the City of Dawson and a Project Management Team was established. In the subsequent month, Dawson hired EPCOR as their prime consultant; EPCOR engaged AMEC and Gartner Lee for initial review and assessments. AMEC reviewed Shiltec's analysis and concurred with the recommendation that an SBR facility was the most appropriate type of development. Stantec Consultants would later also concur with this assessment. Stantec was then contracted to proceed with pre-design work. Discussions with EPCOR for a possible design-build-operate agreement were undertaken but were ultimately unsuccessful. By August 2001, land was provided for the purposes of an SBR development near the existing screenings plant.

In May 2002, the Yukon Government retained G.J. Bull & Associates and Novatec to perform an independent review of work undertaken to date. The consultants released a document in July 2002 (*Comparison of Wastewater Treatment System Options*) that again provided a recommendation that the SBR was the most appropriate treatment option. In June 2002, Stantec completed their pre-design work but chose not to stay on with the project. EPCOR would also depart having completed their work on a bleeder metering project and their input towards the development of a water license application that was submitted on July 31, 2002.

Between August and October 2002, Dawson City requested proposals for the development of a municipal SBR system from engineering consultants. Submissions were forthcoming from EarthTech, UMA and Bull/Novatec with the latter being the successful respondent. In October of the same year, Bull/Novatec hired several Yukon-based sub-contractors and commenced with project planning. The Yukon Water Board promptly requested that Bull/Novatec review in more detail the SBR recommendation. In December 2002, the consultants responded that they agreed the SBR process could perform to the standards of the water license application, but noted concerns over the cost estimates that had been developed to that point. Reportedly, soon after Bull/Novatec was selected as the primary engineering consultant, it became clear that an earlier revised conceptual design estimate of \$9.5 million estimate was considerably too low.

Less than two months after Bull/Novatec commenced with work on an updated pre-design (January 2003), the Yukon Territorial Court formally charged the City of Dawson in relation to their August 16, 2000 violation of the *Fisheries Act*. The court then ordered the completion and operation of an SBR plant by August 31, 2004. The Yukon Water Board recommended water license MN02-045 to coincide with the court order.

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Following an April 17, 2003 report recommending continuation of the development of an SBR wastewater treatment plant, Bull/Novatec proceeded to develop a detail SBR system design. In the June to December 2003 timeframe, it became obvious that costs would significantly exceed earlier estimates for both capital and O&M requirements. Given the court's requirements to proceed with the development of an SBR plant, the consultants were required to fully develop and present their findings. The final estimate presented in December 2003 amounted to capital costs of \$12.5 million and an initial-year O&M cost of \$429 thousand rising to \$534 thousand per annum thereafter. This figure would later be adjusted upward to between \$626 and \$650 thousand to include additional heating requirements for the municipal water supply and to facilitate mechanical plant treatment. (Dawson City Public Update Meeting Minutes, March 22, 2005)

This was a considerable setback for the City of Dawson, and the Yukon Government then assumed lead responsibility for the project on account of fiscal constraints and to assist in the meeting of regulatory and court requirements. The city was convinced that the O&M costs of an SBR system exceeded its financial capacity.

With the need to consider alternate, more cost-effective approaches, a review of earlier assessments of sewage lagoons was undertaken. While anaerobic lagoons were deemed inappropriate given size requirements and local space limitations, less criticism had been applied to aerated (aerobic) lagoon designs. This consideration had been addressed in the Bull/Novatec report which recommended the pilot testing of an aerated lagoon.

Recognizing the efforts and dollars that had been expended in addressing its wastewater problems to date (August 2004), Chief Justice Lilles granted Dawson City an extension to December 31, 2008 to comply with Section 36(3) of the federal *Fisheries Act*. The judge requested that a detailed report be presented every six months outlining progress and future plans.

Following the earlier assessment that a mechanical solution to wastewater management was not economically feasible, project work became increasingly oriented towards the aerated lagoon wastewater treatment option. Prerequisite activities—such as land allocation and tenure, pilot testing results and technical research, flood risk assessment and extensive public and First Nations consultations—were undertaken through the efforts of the Yukon Government's Department of Community Services and through input from City of Dawson staff.

By October 2005, through detailed analysis, a list of 12 prospective lagoon sites was shortened to the following five:

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- Northwest Dawson Site A (Tr'ondëk Hwëch'in First Nations [THFN] Settlement Lands)
  - Southwest Dawson (THFN Settlement Lands)
  - South Island (Commissioner's Lands)
  - South Bench (THFN Settlement Lands & Placer Claims)
  - South Callison Site C (Commissioner's Lands & Placer Claims)

As an initial undertaking towards the development of an aerated sewage lagoon, an application was submitted to the Land Application Review Committee (LARC) in February 2005 to commence with the required public consultation process. The following month, a pilot plant was established at the existing screening plant to assess the feasibility of an aerated lagoon given the unique characteristics of Dawson's wastewater discharge. Meetings and consultations commencing in the spring of 2005 are thoroughly documented in a June 2007 submission to the Yukon Environmental and Socio-economic Assessment Board (YESAB; see bibliography).

Correspondence between the Yukon Government and the THFN with specific reference to the Dawson sewage treatment project commenced in the summer of 2004 and were followed by a series of meetings that began in the fall of 2005. By July 2006, the THFN General Assembly resolved that the Chief & Council would not pursue THFN land for a sewage treatment plant, prompting project managers to address other suitable land parcels. This position was formally reversed through a May 15, 2007 resolution that expressed interest on behalf of the THFN General Assembly to enter into negotiations and if possible conclude a beneficial agreement with the Government of Yukon regarding the use of the bench above Tr'ochëk for a sewage lagoon.

Further addressing the chronology of events, an update meeting was held in Dawson City Council Chambers on March 22, 2005 to inform the public of project developments and to solicit comments and input from the residents of Dawson City. Between this date and April 4, 2007, a total of eight public meetings were held to specifically address wastewater and lagoon treatment developments. (Since this time, town administrators have questioned the effectiveness of the *public update* communication format given the limited turn-out of local residents.)

Early in this 2005 to 2007 timeframe, engineers working on the project identified and reviewed several aerated lagoons located in northern regions of Alaska, BC and Alberta. While some of these aerated lagoons were located adjacent to residential or school properties, all were reportedly viewed in favourable terms.

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Over a period of a few years, location options were reduced to single site at the base of the Dome road, near the southern entrance to downtown Dawson City (lots 1058/59). An aerated lagoon design was developed by Earth Tech. Located close to the town and existing infrastructure, the site reportedly provided the least expensive option in terms of operating and maintenance costs.

A Sewage Treatment Project Fact Sheet (see bibliography) provided by the Yukon Department of Community Services provides a class “C” estimate (i.e., +/- 30% accuracy) for the construction and operation of an aerated lagoon. Capital costs were estimated at \$17 million with annual operating costs of \$293 thousand. Shifting the lagoon site from this to the next closest option would reportedly increase capital costs by approximately 30% and increase annual operating costs by 35%.

Coinciding with technical developments and consultations, a public movement to reject the aerated lagoon option at the lot 1058/59 location was gaining momentum. By Sept 2007, a total of 270 Dawson residents signed a petition to press a referendum on the subject. In meeting the threshold of 199 signatures required by territorial law to force the town to hold a municipal ballot, the group succeeded in pressing for a referendum that was held on March 6, 2008. The referendum resulted in a vote against allowing the development of an aerated lagoon on lots 1058/59, the most cost-efficient site. Given the additional costs of opting for the second-best aerated lagoon solution, a reconsideration of the viability of establishing a cost-effective mechanical solution is seen as a necessary step in achieving the best overall wastewater treatment option for the City of Dawson.

#### 1.4.2 Dawson City Wastewater System: Situation Summary

The City of Dawson installed a screening plant in 1979 after the territorial Water Board stated that a water license would not be issued until the sewage treatment was improved. When this “primary” treatment plant was developed, numerous discharge outlets were consolidated into one discharge point referred to as the Yukon River outfall (*EarthTech Preliminary Report 2007*).

The current water and sewage system is composed, in part, of buried and insulated high density polyethylene pipes that were installed in 1980. Five municipal staff members operate the system that encompasses 850,000 cubic metres of water (2005 estimate) and includes installations at three water source points located near the juncture of the Klondike and Yukon Rivers as well as facilities for storage, treatment and distribution of water.

The following documentation describes the existing Dawson Sewage System (Carlson &

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Johnson, 2007):

*Dawson City's sewage system facilities includes five lift stations, and a sewage treatment plant. The sewage collection system has 16 kilometres of insulated, buried sanitary sewer, and approximately 3.5 kilometres of buried forcemain from the lift stations. The sewage lift stations are submersible pumping systems in wetwells, with control buildings either on top of or adjacent to the wet wells. Four of the lift stations may be considered "small" facilities, and the remaining facility may be considered a medium sized facility. Four of the lift stations collect sewage from the developments on the Klondike Highway, which is the access road into Dawson City.*

*The sewage treatment employs a primary screening operation using two 0.75 millimetre mesh rotostrainers housed in a multi level building (See Figure 5). The sewage discharges into the Yukon River, mid-channel 200 metres (650 feet) west of the perimeter dyke that surrounds the community.*

The impacts of the northern climate on Dawson's sewage system are duly noted by Carlson & Johnson (2007) as follows:

*In a two year period in the mid 1980's, over 225 metres of polyethylene sewer pipe failed by ovaling or collapsing due to the permafrost conditions.*

*The problems due to frost action in the soils were compounded in the vicinity of hydrants, vertical risers, and service connections because a vertical restraint is imposed on the piping system. At service connection locations there were numerous examples of service risers causing a local collapse of the main because of the vertical load on the horizontal sewer main. Adjacent to hydrants and valves, pipe failures occurred at fusion weld joints because of bending or torque along the connecting pipe.*

*The unique soil conditions in Dawson City have required the development of unique water and sewer piping materials and installation techniques. Several studies in the late 1980's compared pipe and bedding configurations, and developed the corrugated metal cover on insulated HDPE piping that is the pipe standard for Dawson City today. The installation of the pipe requires consideration of the permafrost conditions to ensure that the area around the excavation is not significantly disturbed, particularly in areas where the permafrost has a lot of ice lensing.*

EarthTech (2007) provides the following technical comments regarding the screenings plant:

*The existing sewage screening plant is the final result of the original 1979 construction, the 1994 mechanical and electrical upgrade, and the 1998 genset addition. This preliminary screening process is housed in a multi-level building on Fifth Avenue. The process train for this plant includes a 250 mm diameter gravity inlet fed from a hydraulic tower on Craig Street east of*

8th Avenue; gravity collection mains; and a forcemain from the York Street lift station. This inlet pipe discharges into one half of a two part wet well where it is pumped through one of the two Hycor 75 mesh rotostrainers. The screenings are collected in a bagger which bags the screenings which are then lifted by a chain hoist to the outside doorway for removal to the Quigley Solid Waste Facility. The screening effluent from the Rotostrainers flows to the second half of the divided wet well, where it is pumped by two outfall submersible pumps through a 200 mm discharge forcemain. The forcemain discharges into a manhole in the Yukon River dike, and the effluent then flows by gravity out through the Yukon River outfall.

### 1.4.3 Wastewater Characteristics

Dawson City's wastewater characteristics are affected significantly by the seasons and by the ebb and flow of tourism into the region from May to September, inclusive. Municipal bleeder flows coupled with low levels of tourism in the October to April timeframe significantly reduce the concentration of deleterious matter in the city's wastewater discharge. The key problem is faced in summer months when bleeder flows are greatly reduced.

The significant differences between summer and winter flows are presented in an EarthTech report (June 2007) where past design flows are linked to population growth and projected forward to the 2030 and 2050 design horizons (Tables 1.1 and 1.2). EarthTech notes that summer per capita water flows are less on account of a transient work force and influx of tourists in addition to reduced bleeder usage.

**Table 1.1 Winter Design Flows (EarthTech, 2007)**

Year	Population	Avg Annual Flow (AAF) (m <sup>3</sup> /d)	Per Capita AAF (L/cap/d)		Max Month Flow (MMF) (m <sup>3</sup> /d)	Per Capita MMF (L/cap/d)	
2003	1,500	2,350	1,567	Average 1,618	2,502	1,668	Average 1,734
2004	1,500	2,399	1,599		2,500	1,667	
2005	1,500	2,530	1,687		2,800	1,867	
2010	1,508	2,439	1,618		2,615	1,734	
2020	1,515	2,451	1,618	2,627	1,734		
2030	1,530	2,475	1,618	2,653	1,734		
2050	1,560	2,523	1,618	2,705	1,734		

**Table 1.2 Summer Design Flows (EarthTech, 2007)**

Year	Population	Avg Annual Flow (AAF) (m <sup>3</sup> /d)	Per Capita AAF (L/cap/d)		Max Month Flow (MMF) (m <sup>3</sup> /d)	Per Capita MMF (L/cap/d)	
2002	4,200	1,933	460	Average 482	2,060	490	Average 501
2003	4,200	1,965	468		2,207	525	
2004	4,200	1,980	471		1,980	471	
2005	4,200	2,122	505		2,122	505	
2010	4,208	2,066	482	482	2,107	501	501
2020	4,215	2,030	482	482	2,111	501	501
2030	4,230	2,037	482	482	2,118	501	501

2050	4,260	2,051	482	2,133	501
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Table 1.3 outlines wastewater characterization work that was undertaken in advance of respective design assignments.

**Table 1.3 Published Wastewater Characterization Reports (EarthTech, 2007)**

Raw	Units	Shiltec1 (1994)		Bull2 (2005)	
		Summer	Winter	Summer	Winter
BOD	mg/L	120	40	70	30
TSS	mg/L	70	30	50	20
Ammonia	mg/L	12	2	9	2
TKN	mg/L	18	5	N/A	N/A
Total P	mg/L	2.5	1.0	0.5	0.7
O&G	mg/L	40	10	10	5
pH	-	7.0	7.3	7.5	7.8
Alkalinity	mg/L (CaCO <sub>3</sub> )	200	110	N/A	N/A
Temperature	°C	N/A	N/A	7.8	5.4

Table 1.4 outlines the influent wastewater design criteria that were proposed in the EarthTech *Preliminary Design Report*.

**Table 1.4 Design Wastewater Constituent Characteristics (EarthTech, 2007)**

Wastewater Constituent	Concentrations	
	Summer	Winter
BOD (mg/L)	150	50
TSS (mg/L)	100	50
Ammonia (mg/L)	15	8
TKN (mg/L)	20	10
Total Phosphorous (mg/L)	4	2
Alkalinity (mg/L as CaCO <sub>3</sub> )	220	120
Temperature (°C)	8	4

EarthTech (2007) notes the effluent limits required for a new wastewater treatment plant as highlighted in Table 1.5. These are also included in the terms and conditions of Water Licence MN02-045, as issued by the Yukon Water Board on April 17, 2003 (valid to April 30, 2013).

**Table 1.5 Effluent Quality Standards (EarthTech, 2007)**

<b>Wastewater Constituent</b>	<b>Limits</b>
Maximum Flow	4,000 m <sup>3</sup> /d
Biochemical Oxygen Demand (BOD5)	< 45 mg/L
Total Suspended Solids (TSS)	< 60 mg/L
Oil and Grease	< 5.0 mg/L
pH	6 to 9
Fecal Coliforms	20,000 MPN/100mL
Toxicity: LC50 96-hour bioassay, 100% concentration	Non-Toxic
Total residual chlorine (MN96-004, 1996)	< 0.05 mg/L
Applicable dilution ratios	100:1 to 1,000:1

#### 1.4.4 Exogenous Factors: Climate, Geology, Hydrology & Biology

This report section lightly summarizes information related to climatic, hydrological, geological, and biological factors. Project challenges may emerge on account of the northerly location of Dawson City, sub-soil conditions and hydrology.

The normal temperature range in Dawson City varies from average July daytime highs of 21.3°C to average daily lows of -31°C in January. The coldest and warmest temperatures on record are -55.8°C in February, 1979 and 34.7°C in May of 1983. Monthly rainfall in the May to October construction window ranges from 26 mm (May) to 40+ mm (June to August) and 31 mm (September); October generally sees less than 10 mm of rainfall. In contrast to normal precipitation levels, 159 mm of rain fell in Dawson City in July 2008, with a similar trend apparent in August (data not yet available).

Dawson City is situated on a fluvial terrace along the Yukon River at an elevation of 308 metres. The region is unglaciated and part of eastern Beringia. The following documentation on the Dawson region is provided in a 2006 Yukon Exploration and Geology document (*Brideau et al*):

*Weather records yield an annual average air temperature of about -5°C (Wahl et al., 1987), but during the last decade this average has increased by several degrees (Environment Canada) to the detriment of permafrost and other periglacial features... Stable rock surfaces support thick lichen (although some ultramafic substrates are nutrient-poor for plant growth), and dense mixed (spruce-birch) second-growth forest occurs on thin soils, several tens of centimetres thick. Soils are composed of colluvium generally derived from local weathered bedrock intermixed with silty aeolian deposits (loess) and organic matter (Bond and Sanborn, 2006), and they are commonly modified by cryoturbation.*

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Subsoil and permafrost conditions and their impacts on municipal infrastructure are highlighted below (Carlson & Johnson, 2007):

*Subsoil conditions in Dawson City typically consist of a surface layer of common road fill 0.6 to 0.9 metres in thickness, underlain by organics, organic silts, and silts to a depth of 3 to 5 metres. This layer of silt and organic silt has an ice content varying from zero to greater than 50 percent excess ice content. Beneath this layer of organic silt, a layer of alluvial gravels has been deposited by the Yukon River; these gravels are relatively dense and thaw stable.*

*This area is in the widespread discontinuous permafrost zone, with ground temperatures in the range of -1.5 C, which is considered to be “warm” permafrost. Since the permafrost temperature is just below freezing, the permafrost may thaw or degrade very easily from disturbances such as the installation of underground utilities. Problems with respect to water and sewer systems in these soil conditions have caused ground subsidence due to thaw of the ice rich permafrost, and seasonal frost heave of buried foundations and utility pipes.*

Dawson City lies on the eastern shore of the 3,700 km Yukon River that maintains an average flow rate of 6,430 m<sup>3</sup>/second (227,000 ft<sup>3</sup>/s). With a total drainage area of 832,700 km<sup>2</sup>, the Yukon River basin covers an area of land that is one-quarter larger than Alberta. Approximately 40% of the river course is situated in Canada with the remainder coursing through Alaska. As Dawson City lies in a flood plain, work has been undertaken to evaluate the impact of various flood scenarios. (Gartner Lee, 2002)

The following excerpts (*Brabets et al*) describe some of the hydrologic characteristics of the Yukon River Basin:

*Near its mouth, the Yukon River transports about 60 million tons of suspended sediment toward the Bering Sea annually. However, each year, about 20 million tons of sediment are deposited on flood plains and in braided reaches of the river. Implications of this deposition are enormous for the sequestration of organic carbon, contaminants, and other materials that are absorbed onto, or otherwise associated with, alluvial sediments.*

*The waters of the main stem of the Yukon River and its tributaries are predominantly calcium magnesium bicarbonate waters with specific conductance ranging from 54 to 373  $\mu$ S/cm. Concentrations of the nutrients nitrogen and phosphorus are generally less than 0.5 mg/L. Temporal trends in water quality between summer and winter are evident at some sites along the Yukon River. Comparison of water-quality data within ecoregions indicates that total organic carbon concentrations were highest in ecoregions dominated by organic soils.*

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*Some anthropogenic effects to water quality of the Yukon River Basin have been documented. These effects are due to atmospheric processes, pre-regulation mining, and old military sites used during the Cold War. The cumulative effects on the Yukon River Basin cannot be made because of a lack of water quality data.*

Approximately 126,000 people live in the Yukon River basin with approximately 10% maintaining a subsistence lifestyle. The river provides suitable habitat for fish species such as salmon (coho, chum and chinook), northern pike, arctic grayling, burbot, and whitefish (broad, inconnu, round, and cisco), and slimy sculpins. A considerable volume of material is available providing information on Yukon River fish habitat through the Yukon River Panel, related institutions and websites (see bibliography). Recent reductions in the number of salmon running in this and other Yukon and Alaskan rivers has heightened concerns related to commercial fishing, industrial developments and the conservation of fish habitat.

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## 1.4.5 Bibliography: Background Section References

Yukon Bureau of Statistics (population data): *Yukon Fast Facts, September 12, 2008.*

Dawson Statistical Data: [http://www.eco.gov.yk.ca/stats/pdf/mr\\_jul08.pdf](http://www.eco.gov.yk.ca/stats/pdf/mr_jul08.pdf)

Climate Normals:

[http://www.climate.weatheroffice.ec.gc.ca/climate\\_normals/results\\_e.html?Province=YT%20%20&StationName=&SearchType=&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=1535&](http://www.climate.weatheroffice.ec.gc.ca/climate_normals/results_e.html?Province=YT%20%20&StationName=&SearchType=&LocateBy=Province&Proximity=25&ProximityFrom=City&StationNumber=&IDType=MSC&CityName=&ParkName=&LatitudeDegrees=&LatitudeMinutes=&LongitudeDegrees=&LongitudeMinutes=&NormalsClass=A&SelNormals=&StnId=1535&)

Brideau, M.-A., Stead, D., Stevens, V., Roots, C., Lipovsky, P. and VonGaza, P., 2007. The Dawson City landslide (Dawson map area, NTS 116B/3), central Yukon. *In: Yukon Exploration and Geology 2006*, D.S. Emond, L.L. Lewis and L.H. Weston (eds.), Yukon Geological Survey, p. 123-137.

Wikipedia: Yukon River: [http://en.wikipedia.org/wiki/Yukon\\_River](http://en.wikipedia.org/wiki/Yukon_River)

Timothy P. Brabets, Bronwen Wang, and Robert H. Meade. 1999. [Environmental and Hydrologic Overview of the Yukon River Basin, Alaska and Canada](#) U.S. GEOLOGICAL SURVEY, Water-Resources Investigations Report 99-4204

Dawson City Mayor's Blog: <http://themayorsblog.com/>

Court document (Citation: *R. v. City of Dawson*, 2003 YKTC 16):

[http://www.yukoncourts.ca/judgements/territorial/2003/r\\_v\\_cityofdawson\\_2003\\_yktc\\_16.pdf](http://www.yukoncourts.ca/judgements/territorial/2003/r_v_cityofdawson_2003_yktc_16.pdf)

Predicted Flood Levels (Gartner Lee, Ltd.):

[http://www.community.gov.yk.ca/pdf/dawson\\_city\\_predicted\\_flood\\_levels.pdf](http://www.community.gov.yk.ca/pdf/dawson_city_predicted_flood_levels.pdf)

Hydrogeology and Hydrological Desktop Study of Potential Impacts to the Dawson Well Field by the Proposed Dawson City Sewage Lagoon

[http://www.community.gov.yk.ca/pdf/water\\_impact\\_study\\_gartner\\_lee\\_.pdf](http://www.community.gov.yk.ca/pdf/water_impact_study_gartner_lee_.pdf)

Scientific Investigations Report 2004—5285: *Biomonitoring of Environmental Status and Trends (BEST) Program: Environmental Contaminants and their Effects on Fish in the Yukon River Basin*. Jo Ellen Hinc, Timothy Bartish, Vicki Blazer, Nancy Denslow, Tim Gross, Mark

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Myers, Patrick Anderson, Carl Orazio, and Donalt Tillitt. US Department of Interior and US Geological Survey

<http://www.cerc.usgs.gov/pubs/center/pdfDocs/BEST-YukonRiver.pdf>

Dawson City Sewage Treatment Improvements, Prelim. Report. EarthTech (June 5, 2007)

[http://www.community.gov.yk.ca/pdf/earth\\_tech\\_report\\_june2007.pdf](http://www.community.gov.yk.ca/pdf/earth_tech_report_june2007.pdf)

Yukon River Salmon Summary Report (2007-2008)

[http://www.yukonriverpanel.com/Library/JTC/JTC\\_2007\\_Summary\\_2008\\_%20Outlook\\_Final\\_Report.pdf](http://www.yukonriverpanel.com/Library/JTC/JTC_2007_Summary_2008_%20Outlook_Final_Report.pdf)

Yukon River Fish Habitat Information: <http://www.yukonriverpanel.com/jtcreports.htm>

Predictable Flood Levels: [http://www.community.gov.yk.ca/pdf/dawson\\_city\\_predicted\\_flood\\_levels.pdf](http://www.community.gov.yk.ca/pdf/dawson_city_predicted_flood_levels.pdf)

Norm Carlson & Ken Johnson. *Water and sewer system serving Dawson City, Yukon*  
Journal of the Northern Territories Water & Waste Association, 2007

[http://www.ntwwa.com/documents/NTWasteWater\\_2007\\_Web.pdf](http://www.ntwwa.com/documents/NTWasteWater_2007_Web.pdf)

Court Documents, Proceedings and Transcripts:

1. Citation: *R. v. City of Dawson*, 2003 YKTC 16 (Court Document—*Reasons for Sentencing and Sentencing Factors Applied*):

[http://www.yukoncourts.ca/judgements/territorial/2003/r\\_v\\_cityofdawson\\_2003\\_yktc\\_16.pdf](http://www.yukoncourts.ca/judgements/territorial/2003/r_v_cityofdawson_2003_yktc_16.pdf)

2. Proceedings:

[http://www.community.gov.yk.ca/pdf/court\\_proceedings\\_nov2005.pdf](http://www.community.gov.yk.ca/pdf/court_proceedings_nov2005.pdf)

[http://www.community.gov.yk.ca/pdf/court\\_proceedings\\_june2006.pdf](http://www.community.gov.yk.ca/pdf/court_proceedings_june2006.pdf)

[http://www.community.gov.yk.ca/pdf/court\\_proceedings\\_nov2006.pdf](http://www.community.gov.yk.ca/pdf/court_proceedings_nov2006.pdf)

[http://www.community.gov.yk.ca/pdf/Court\\_Transcript\\_June\\_28\\_2007.pdf](http://www.community.gov.yk.ca/pdf/Court_Transcript_June_28_2007.pdf)

<http://www.community.gov.yk.ca/pdf/DCSTFCP.pdf>

Access to a variety of Yukon Environmental and Socio-economic Assessment Board (YESAB) materials related to the Dawson Wastewater Treatment Project can be found by clicking the “Browse” button on YESAB’s on-line registry and entering the following Project Number: 2007-0144. To complete this search, it is necessary to scroll down and click on “Search”: <http://www.yesab.tzo.com/wfm/launch/YESAB>

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City of Dawson – Wastewater Treatment Project, Yukon Environmental and Socio-economic Assessment Act (YESAA) Executive Committee Screening **Consultation Summary Report**. Submitted by the Government of Yukon on Behalf of the City of Dawson, June 2007.

Dawson City Sewage General Information Website:

[http://www.community.gov.yk.ca/general/dawson\\_sewage.html](http://www.community.gov.yk.ca/general/dawson_sewage.html)

City of Dawson Sewage Treatment Project Fact Sheet (Yukon Department of Community Services): [http://www.community.gov.yk.ca/landdevelopment/dawson\\_sewage\\_treatment.html](http://www.community.gov.yk.ca/landdevelopment/dawson_sewage_treatment.html)

*Sewage lagoon petition flushed by Dawson council*

September 14, 2007 CBC News: <http://www.cbc.ca/canada/north/story/2007/09/14/lagoon-petition.html>

Personal communication with Kriss Sarson, Yukon Department of Community Services (September 2008)

Personal communication with Terry Bidniak, Yukon Department of Highways and Public Works (September 2008)

Personal communication with Paul Moore and Norm Carlson, The City of Dawson (September 2008)

Canada-wide Strategy For Managing Municipal Wastewater Effluents (2007 Draft Document Council of Ministers of the Environment). See associated website:

[http://www.ccme.ca/ourwork/water.html?category\\_id=81#336](http://www.ccme.ca/ourwork/water.html?category_id=81#336)

Yukon Community Profiles (Canadian Government, Yukon Government and the Yukon Chamber of Commerce): <http://www.yukoncommunities.yk.ca/communities/dawson/economy/>

Yukon Economic Outlook (Department of Economic Development, Yukon Government):

<http://economics.gov.yk.ca/Files/August2008Update.pdf>

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## 1.5 Project Schedule

The following timetable outlines the anticipated schedule for key milestones in the procurement and contract process. The timing and the sequence of events occurring after this Request for Qualifications may vary and shall ultimately be determined by the Yukon government.

<b>Event</b>	<b>Anticipated Date</b>
RFQ Issue	September 19, 2008
RFQ Close	November 6, 2008
Request for Proposal Issue	November 2008
RFP Close	January 2009
Contract award	February, 2009
Capital Construction completion	Winter, 2011

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## 2. Evaluation Criteria and Process

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Responses will be evaluated based on **technical competencies & capabilities, project team capacity, as well as project vision and understanding**. The Government will short list the Respondents it considers, in its sole and absolute discretion, to be the best qualified to undertake the Project. The Government is not bound to evaluate or accept any Response.

### 2.1 Evaluation Committee

The evaluation of Responses will be conducted by the evaluation committee which will include representatives of Dawson City and the Yukon Government, and may include external advisors.

In carrying out the evaluation of the Responses, the evaluation committee may, in confidence, obtain and rely upon any technical, managerial and other input and direction from any person or firm, including without limitation, officials of the Government and external advisors to the Government.

### 2.2 Evaluation Criteria

The evaluation committees will review Responses based upon the Evaluation Criteria. Incomplete Responses, or Responses that do not meet all mandatory criteria may be Disqualified without further consideration at the sole and absolute discretion of the Government.

To assist in evaluation of the Responses, and in determining their suitability, acceptability and credibility, the Government may, in its sole and absolute discretion:

- (a) conduct reference checks with any or all of the references cited in a Response; and
- (b) rely on and consider any information from such cited references.

If an experience, capacity or other information contained in a Response is not verified to the Government's satisfaction through such reference checks, the Government is not obliged to, and may not, consider such cited experience, capacity or other information.

## 2.3 Mandatory Criteria

The following are mandatory requirements. Responses not clearly demonstrating that they meet them will receive no further consideration during the qualifications review process.

CRITERION
1. The Response must be received at the closing location by the specified closing date and time.
2. The Response must be in English and must <b>not</b> be sent by facsimile or email.
3. One hard copy and one electronic copy on CD of the Response must be submitted..
4 The Response must include a cover letter substantially similar to the cover letter set out in Form A and the cover letter must be signed, by a person authorized to sign on behalf of the Respondent and to bind the Respondent to the statements made in the Response to this RFQ.

## 2.4 Desirable Criteria

Responses meeting all mandatory requirements will be further assessed against the following desirable criteria. A Respondent not reaching the minimum score in a given category will receive no further consideration during the qualifications review.

Criterion	Points Available	Minimum score (if applicable)
1. Background and Experience	35	
2. Technical Competencies and Capabilities	35	
<i>Subtotal – Experience and Technical Capability</i>	70	45
3. Project Vision and Understanding	30	
<b>TOTAL POINTS AVAILABLE</b>	<b>100</b>	65

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## 2.5 Qualifications Review Stages

### Stage 1

Responses will be checked for compliance with the Mandatory Criteria. **Responses that do not meet the mandatory requirements will receive no further consideration.**

### Stage 2

For each Category, Respondents will be assessed on their background, capabilities and relevant experience. **A Respondent not reaching the minimum score overall or in a given criterion will receive no further consideration during the qualifications review.**

### Stage 3

All respondents who passed the minimum scores will have their references checked. Reference checks may be done by the Evaluation Committee during the qualifications review. The Evaluation Committee reserves the right to contact references other than those provided by the Respondent. If any of the references are unsatisfactory to the Evaluation Committee, the Respondent may be excluded from the List of Qualified Suppliers.

### Stage 4

Respondents will be notified of their status on the List of Qualified suppliers and may be forwarded the Request for Proposal.

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## 3. Response Format and Requirements

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### 3.1 Response Format

Each Response should:

1. be on single sided 8.5" x 11" paper;
2. have text with 1.5 x spacing and 11 point or larger typeface;
3. include one original and one electronic copy on CD, the original should be either unbound or in a three ring binder, with every page numbered;
4. a detailed response to the requirements identified in section 3.2,
5. provide a return address on the outside of the sealed container; and
6. be clearly marked "Dawson Waste Water Treatment Facility RFQ Response".

### 3.2 Response Requirements

The Response should contain the following elements and be presented in the order outlined below.

#### 3.2.1 Introductory Section

- 1) Cover Page
- 2) Table of Contents
- 3) Overview

Introduction of the Respondent, inclusive of Form B, and provide a Respondent's Representative for all future communications between the City of Dawson/Government regarding the RFQ. Form A must also be included in this section of the Response.

- 4) Health, Safety and Quality Management
  - a. **Health and Safety:** Respondents should provide evidence they are in good standing with the Yukon Workers' Compensation Health and Safety Board. Companies based outside of the Yukon should provide details of equivalent Workers' Compensation Authority that addresses worker safety and formula/rating used in the home office location. Respondents should provide details of any health, safety or environment-related regulatory warnings, stop-work orders or

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citations within the past three years.

- b. **Quality Management:** Respondents should provide complete and accurate data for Prime Member (or sponsor of joint venture) regarding:
- i. Personnel responsible for quality (may include in organizational chart)
  - ii. Description of company Quality Assurance Program
  - iii. Description of company Quality Control Program
  - iv. Has the Quality Assurance/Quality Control Program been registered by any recognized authorities? If yes, provide copy of certificate.

### 3.2.2 Background and Relevant Experience

- 1) How long has the Respondent been in business?
- 2) How many years experience does the Respondent have in the design, building and/or operation of mechanical waste water treatment facilities similar in scale to that required by Dawson City?
- 3) Describe the Respondent's experience in design and construction of mechanical waste water treatment facilities in an environment similar to Dawson City's. Provide details of at least three projects similar in scope and complexity which were completed on time and on budget (maximum three pages per project).

Descriptions of previous experience provided as evidence in the submission should include as applicable to design, construction and maintenance for each project:

- project name;
- scheduled and actual completion date;
- names of the Team Members involved;
- a project description, inclusive of:
  - project location;
  - key design parameters;
  - major challenges overcome;
  - innovations; and
  - specific relevancy to this project;
- original budget and final cost;
- environmental management;
- adherence to environmental regulations;
- communications management and public relations;

- 
- contract type (e.g. traditional procurement, DBO, DBFO, etc);

4) For each of the projects identified in 3) above, provide an independent client contact person or organization that can verify the information provided, particularly quality of products and services achieved (name, title, organisation, address, phone number and fax number).

### 3.2.3 Technical Competencies and Capabilities

1. Describe the Respondent's in-house expertise as it relates to the design and construction of mechanical waste water treatment facilities.
2. Describe the make up of a team the Respondent would typically put together for a project of this nature. Describe the skill sets of each of the team positions.
3. Describe the Respondent's experience in dealing with project communications, specifically in regard to small communities and First Nations.
4. Describe the track record of the wastewater treatment technology(ies) the Respondent has applied previously in a project of this nature.
5. Describe the Respondent's experience in supporting / participating in regulatory approval processes related to mechanical wastewater treatment facilities.
6. Given the importance of local and Yukon economic benefits, describe what Yukon content the Respondent could offer.

### 3.2.4 Project Vision & Understanding

To demonstrate their clear and comprehensive understanding of this Project, Respondents are to provide a brief summary, on how they might address the challenges anticipated in managing this Project. Topics that Respondents should address in the Response include, but are not limited to:

1. the timelines for the design, construction, and commissioning of the waste water treatment facility, including evidence of awareness of current and emerging regulatory requirements and evidence the management team and key Individuals will be available to do the Project on schedule;
2. the planned approach to ensure long term sustainability of operation and maintenance costs for this Project;
3. creation and maintenance of appropriate relationships with suppliers and project stakeholders in a rural/remote northern environment;
4. creation and maintenance of a long-term relationship with the City of Dawson.

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## 4. Instructions to Respondents

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Listed below are certain delivery, format and content requirements to be followed for Responses and communications to facilitate fairness and consistency in evaluation and to ensure proper consideration of each Response.

### 4.1 RFQ Enquiries

All communications or enquiries about this RFQ must be made in writing, sent by email, hand or courier delivery, or facsimile to the Contact Person:

Brian Sugrue or Jerry Gauthier  
Purchasing Services Branch  
563 Superior Street  
Victoria, BC  
V8W 9W6

Email: [purchasing@gov.bc.ca](mailto:purchasing@gov.bc.ca)  
Fax: 250-387-7309

Deliveries of communications or enquiries at the office of the Contact Person will be accepted weekdays from 8:30 am to 4:30 pm Pacific Time and must clearly state "Dawson City Waste Water Treatment Facility RFQ Enquiry". Communications or enquiries to and responses from the Contact Person may be recorded and may, at the Government's discretion, be distributed to all Respondents. The Government reserves the right not to respond to any enquiry or communication made by a Respondent.

The Government is not responsible for any error that may occur from submission of communications or enquiries.

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## 4.2 Submission Time and Submission Location

Responses **must** be received at the **Submission Location** before **4:00 P.M. Pacific Time on Thursday, November 6, 2008** (the Submission Time).

Responses may be delivered by hard copy only. One hard copy and one electronic copy on CD of the Response must be submitted to the **Submission Location**:

Government of the Yukon  
Contract Services Office  
Second Floor  
9010 Quartz Avenue  
Whitehorse, Yukon Y1A 2C6

Faxed or electronic Responses will NOT be accepted in response to this RFQ. The Response must include a cover letter substantially similar to the cover letter set out in Form A and the cover letter must be signed, by a person authorized to sign on behalf of the Respondent and to bind the Respondent to the statements made in the Response to this RFQ.

Responses received after the Submission Time will not be considered and will be returned unopened.

## 4.3 Revisions to Responses Prior to the Submission Time

Respondents may make revisions to their Responses (“**Revisions**”) after the submission of their Responses on the condition that each Revision **must**:

1. be in English;
2. clearly indicate the Revision made, with every page numbered;
3. be enclosed in one sealed container;
4. be addressed to the Contact Person;
5. be clearly marked “Revision to Dawson City Waste Water Treatment Facility RFQ Response of [Respondent’s name]”;
6. be submitted by hand or courier to the Submission Location; and
7. be received before the Submission Time.

Revisions posted by mail or sent by facsimile or email will not be considered.

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Deliveries of Revisions at the Contract Services Office will be accepted on weekdays from 8:00 a.m. to 4:30 p.m. Pacific Time. Revisions received after the Submission Time will not be considered and will be returned unopened.

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## 5. RFQ Terms and Conditions

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### 5.1 Eligibility

Any interested party, or parties, may submit a Response to this RFQ. Respondents may be individuals, corporations, joint ventures, partnerships, or any other legal entities; however, Respondents should have the ability to undertake the entire Project, as described in this RFQ document.

### 5.2 No Unauthorized Contact

All communication on matters related to the Project or the Procurement Process must be directed in writing to the Contact Person (see **section 4.1**). Respondents, Team Members and sureties, insurance companies, financiers, agents, consultants or advisors of Respondents and Team Members must not attempt to, or actually, communicate directly or indirectly on matters related to the Project or the Procurement Process with employees of the City of Dawson, the Government or any other government employees who are involved in the Project or the Procurement Process.

Information offered from sources other than the Contact Person with regard to the content, intent or interpretation of this RFQ is not official, may be inaccurate and should not be relied on in any way by any person or firm for any purpose.

### 5.3 Clarification of RFQ

Respondents should review the entire RFQ, including any and all Addenda, prior to submitting a Response. Any request for clarification of issues related to the RFQ must be transmitted in writing by hand or courier delivery or facsimile to the Contact Person not less than 5 calendar days prior to the Submission Time (see further details in **section 4.1**). Any clarification by the Government and subsequent information regarding this RFQ, including Addenda, will be communicated to all interested parties. The Government will endeavor to provide such communication as soon as possible after the receipt of a request for clarification.

### 5.4 Addenda

Written Addenda are the only means of amending or clarifying this RFQ. Only the

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Government, through the Contact Person, is authorized to amend or clarify this RFQ by issuing an Addendum. No other employee or agent of the Government is authorized to amend or clarify this RFQ. The Government may, in its absolute discretion through the Contact Person and with notice in writing to interested parties, amend or clarify the terms or contents of this RFQ at any time before the Submission Time. The Government shall make reasonable efforts to deliver each Addendum to all such interested parties. The Government makes no guarantee of timely delivery of any Addenda to any person or firm, however, all addenda will be posted on the BC Bid website ([www.bcbid.gov.bc.ca](http://www.bcbid.gov.bc.ca)). The Government reserves the right to issue Addenda up to five (5) business days before Submission Time by which RFQ responses must be submitted.

## 5.5 Cost of Preparing RFQ Response

Respondents are solely responsible for all costs they incur in the preparation of their Responses.

## 5.6 Clarifications and Requests for More Information

The Government reserves the right but is not obliged to request clarification of Responses or request further information from any or all Respondents.

In addition, if, in the opinion of the Government, any Response contains a minor defect or irregularity or fails in some way to comply with any requirement of this RFQ that, in the opinion of the Government, can be remedied without providing an unfair advantage to one or more Respondents, the Contact Person may request clarification from the Respondent.

The Government, upon receipt of appropriate clarification, may waive the minor defect or irregularity and accept the Response. Failure by a Respondent to provide a written response that, in the opinion of the Government, properly clarifies its Response within the time specified in the request for clarification may result in Disqualification of the Response.

## 5.7 Notification of Success at this RFQ Stage and Debriefing

A written notice to the Respondent contact representative, as identified in completed **Form B**, is the only valid form of notification of success at this RFQ stage. Upon the execution of such further confidentiality undertaking as the Government may require, the short listed Respondent may proceed to the RFP stage.

Debriefing arrangements will be made for Respondents upon request.

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## 5.8 Reservation of Rights

The Government reserves the right, in its sole and absolute discretion, to:

1. amend the scope of the Project, modify, cancel or suspend the RFQ process or any or all stages of the Procurement Process at any time for any reason;
2. require clarification of a Response;
3. accept or reject any Response based on the evaluation criteria as determined in the sole and absolute discretion of the Government;
4. not accept any or all Responses;
5. reject or Disqualify all or any Response without any obligation, compensation or reimbursement to any Respondent or any of its Team Members;
6. re-advertise for new submissions, call for tenders, or enter into negotiations for this Project or for work of a similar nature; or
7. make any changes to the terms of the business opportunity described in this RFQ

Under no circumstances, including the cancellation of this RFQ and/or the decision not to proceed with the RFP process, shall the Government be liable for any costs incurred by interested Respondents; furthermore, in no way shall this document suggest or constitute a contractual arrangement between the Government and the Respondent(s).

## 5.9 Limitation of Damages

Each Respondent and each of its Team Members, by submitting a Response, agree that:

1. in the event any or all Responses are rejected or Disqualified or the Project or Procurement Process is modified, suspended or cancelled for any reason (including modification of the scope of the Project or modification of the RFQ or the RFP or both), neither the Government nor any of its employees, advisors or representatives will be liable, under any circumstances, for any Claim or to reimburse or compensate the Respondent or any of its Team Members in any manner whatsoever including but not limited to costs of preparation of the Response, loss of anticipated profits, loss of opportunity or for any other matter;
2. the Respondent and its Team Members waive any and all Claims whatsoever, including Claims for loss of profits or loss of opportunity, in the event that the Respondent is rejected or Disqualified or is not successful in being short listed in the Procurement Process or for any other reason; and

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3. with respect to circumstances not listed in the foregoing subsections, the Respondent and its Team Members will not make any Claim against the Government or its employees, advisors or representatives in excess of an amount equivalent to the reasonable costs of preparation of the Response for any matter relating to the RFQ, the Project or the Procurement Process.

### **5.9.1 Access to Information and Protection of Privacy Act**

All documents and other records in the custody of or under the control of the Government are subject to the *Access to Information and Protection of Privacy Act* (**ATIPP Act**) and other applicable legislation. Except as expressly stated in this RFQ and subject to the ATIPP Act or other applicable legislation, all documents and other records submitted in response to this RFQ will be considered confidential and such information may be released pursuant to a qualified request under ATIPP Act or other applicable legislation.

ATIPP Act can be accessed as follows:

<http://www.gov.yk.ca/legislation/acts/ataatipp.pdf>

### **5.9.2 Right to Verify and Conduct Background Investigations**

The Government reserves the right to verify any and all information regarding an Respondent or any of its Team Members whether or not contained in the Response and to conduct any background investigations including criminal record investigations, verification of the Response, credit enquiries, litigation searches, bankruptcy registrations, taxpayer information investigations and any other investigations that it considers necessary in the course of the Procurement Process.

## **5.10 Disqualification**

A Response may be Disqualified at the sole and absolute discretion of the Government if:

1. background investigations:
  - a. reveal any false statements in the Response;
  - b. reveal any criminal affiliations or activities by the Respondent or a Team Member and such affiliations or activities would, in the sole opinion of the Government, interfere with the integrity of the Procurement Process; or
  - c. indicate in the sole and absolute opinion of the Government that the inclusion of any Team Member would be contrary to public interest or

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impair the ability of the Respondent to fulfil its obligations for the Project; or

2. it does not comply with the requirements of this RFQ unless it can be remedied or clarified under **section 5.3**; or
3. it includes a false or misleading statement, claim or information.

## 5.11 No Representation or Warranty

All information provided in this document for the Dawson City Waste Water Treatment Facility Project or which is provided pursuant to any request for information made by a Respondent has been obtained from sources which are believed to be reliable and is made available to the Respondents in good faith. However, no representation, express or implied, is made as to the accuracy or completeness of such information or that such information is suitable for the purposes of any Respondent Team Member, and the Government expressly disclaims any and all liability for any errors or omissions in such information or which may be contained in any oral or written communication transmitted or made available to any Respondent or its Team Members. By submitting a Response, a Respondent confirms the agreement of such Respondent and its Team Members to the disclaimer of liability contained in this paragraph.

## 5.12 No Lobbying

Respondents and their members will not engage in any form of political or other lobbying whatsoever with respect to this Project or to influence the outcome of the Procurement Process. In the event of any such lobbying or communications, the Government's Department of HPW, at its sole and absolute discretion, may at any time, but not be required to, reject any Response by that Respondent without further consideration and either terminate that Respondent's right to continue participating in the RFQ stage and subsequent stages of the Procurement Process, or impose such conditions on that Respondent's continued participation in the procurement stage as the Yukon Department HPW, at its sole discretion, may consider in the public interest or otherwise appropriate.

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## 6. Glossary of Terms

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In this RFQ:

**Addenda** or **Addendum** means each and every written document issued by the Contact Person for the purpose of amending or clarifying this RFQ.

**Authorized Signatory** or **Authorized Signatories** of a Respondent means the person(s) or firm(s) having the authority to legally bind the Respondent.

**BC Bid** is a British Columbia-based procurement service that is providing consulting inputs and e-procurement capabilities to the Yukon Government.

**Claim** means any claim, demand, liability, damage, loss, suit, action or cause of action and all costs and expenses relating thereto.

**Contact Person** means the person designated by the Government in **section 4.1**.

**Contract** means a written contract executed by the Yukon Government and the Contractor as a result of an RFP.

**Contractor** means a Qualified Respondent who is the successful Respondent to an RFP who enters into a Contract with the Yukon Government.

**Department** means the Yukon Department of Highways and Public Works.

**Disqualification** or **Disqualify** means exclusion of a submission by the Government from the Procurement Process (**Section 5.11**).

**Evaluation Criteria** means the criteria described in section 2.

**Evaluation Committee** shall include individuals representing the City of Dawson, the Yukon Government and may include individuals representing private sector.

**Government** means the Government of the Yukon as represented by the Minister of

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Highways and Public Works and any or all departments, ministries, agencies, boards, commissions, corporations or other entities thereof,

**HPW** means the Government of the Yukon's Department of Highways and Public Works.

**Pacific Time** means the 8<sup>th</sup> time zone west of Greenwich that includes the Yukon.

**Preferred Respondent** means any entity, including the company, firm, consortium of any legal entity selected by the Government during the RFP process to negotiate the Concession Agreement.

**Prime Member** means the lead company for the Respondent team.

**Procurement Process** means the overall process for selection of a Preferred Respondent for the Project including, but not limited to, the RFQ and RFP.

**Project** means the design, build, and operate or warrant operational costs for a mechanical waste water treatment facility in Dawson City.

**Respondent** means any entity, including a company, firm, consortium of any legal entity, which returns a Form B Respondent Form to the Contact Person, and plans to make a response to this RFQ.

**Qualified Respondent** means a Respondent possessing the qualifications described in this RFQ.

**Respondent's Representative** means the person or firm, identified in **Form B**, who is fully authorized to represent the Team Members in any and all matters related to its Response.

**RFP** means the request for proposals to be issued by the Government as the second stage of the Procurement Process and includes any addenda thereto.

**RFQ** means this request for qualifications issued by the Government as the first stage of the Procurement Process and includes any Addenda thereto.

**Response** means the formal submission by a Respondent in response to this RFQ that complies with the requirements of this RFQ.

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**Submission Location** means the location, as described in this RFQ in **section 4.2** to which Responses must be submitted before the Submission Time.

**Submission Time** means the time and date as described in **section 4.2** for the submission of Responses after which no further Responses will be accepted.

**Team Member** means a individual as in a sole proprietorship, corporation, partnership, joint venture, association, trust, pension fund and the heirs, beneficiaries, executors, legal representatives or administrators of an individual as the context requires, who is expected to have significant responsibility for implementation of the Project and who has agreed to participate as part of a Respondent.

**Yukon Business** means a business that meets two or more of the following criteria:

1. the business employs Yukon Residents;
2. the business owns, for purposes directly related to the operation of the business, real property in the Yukon;
3. the business operates a permanently staffed office, year-round in the Yukon;
4. the business is owned, or is a corporation that is owned, 50% or more by Yukon residents.

**Yukon Resident** means a person who has resided full time in the Yukon for a minimum of the immediately preceding three months. Except where otherwise provided in this directive, proof of residency for the required period will be a valid Yukon Health Care Insurance Plan card.

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## 7. FORM A: COVER LETTER / RESPONSE DECLARATION

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1. *This Response Declaration must be executed by all Team Members comprising the Respondent.*
2. *By executing this Response Declaration, you agree to the provisions of the RFQ and this Response Declaration.*
3. *Original signatures from all Team Members, whether in one document or in counterparts, must be submitted.*

*[RFQ Respondent's Letterhead]*

To:

Government of the Yukon

**Attention:**

The Respondent and each of its Team Members hereby agree and acknowledge that:

1. Response
  - a. this Response Declaration [Form A] has been duly authorized and validly executed and is binding on the Respondent and its Team Members;
  - b. the Respondent and each of its Team Members are bound by all statements and representations in its Response;
  - c. its Response strictly conforms with the RFQ and that any failure to strictly conform with the RFQ may, in the sole and absolute discretion of the Government, be cause for Disqualification;
  - d. its Response is in all respects a fair Response made without collusion or fraud;
  - e. the Government reserves the right to verify information in its Response and conduct any background investigations including criminal record investigations, verification of the Response, credit enquiries, litigation searches, bankruptcy registrations and taxpayer information investigations or other investigations on all or any of the Team

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Members and by submitting an Response, the Respondent and each of its Team Members agree that they consent to the conduct of all or any of those investigations by the Government;

2. Acknowledgements with Respect to the RFQ

- a. the Respondent and each of its Team Members have received, read, examined and understood the entire RFQ including all of the terms and conditions, all documents listed in the RFQ "Table of Contents" and any and all Addenda;
- b. the Respondent and each of its Team Members agree to be bound by the entire RFQ including all of the terms and conditions, all documents listed in the RFQ "Table of Contents" and any and all Addenda;
- c. by submitting a Response, the Respondent and each of its Team Members waive any further right to amendment or clarification of any aspect of the RFQ;
- d. in the event that the Respondent is selected as the Preferred Respondent, each Team Member intends to make its resources available to the Respondent, in the manner anticipated in the Response, throughout the foreseeable duration of the Project;
- e. the contact representative identified in Form B is fully authorized to represent the Team Members in any and all matters related to its Response, including but not limited to providing clarifications and additional information that may be requested in association with the RFQ;
- f. the Respondent has had sufficient time to consider and has satisfied itself as to the applicability of the material in the RFQ and the Information Package and any and all conditions that may in any way affect its Response;
- g. the information and documents included in the Information Package are provided for historical and background purposes only and the information contained therein may not properly, adequately or accurately represent the current context or circumstances or current policies in relation to the subject matter;

3. Evaluation of Responses

- a. the RFQ is not an offer, a tender or a request for proposals, it is a request for qualifications and the responsibility of the Government is therefore limited to evaluating the Responses in accordance with the Evaluation Criteria set out in the

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RFQ provided that, in its sole and absolute discretion, the Government decides to proceed with evaluation of the Responses;

- b. the Government will solely determine the Responses that meet the requirements in accordance with the Evaluation Criteria and the Respondents who will be short listed pursuant to the RFQ;

4. Limitation of Damages

- a. in the event any or all Responses are rejected or Disqualified or the Project or Selection Process is modified, suspended or cancelled for any reason (including modification of the scope of the Project or modification of the RFQ or the RFP or both), neither the Government nor any of its employees, advisors or representatives will be liable, under any circumstances, for any Claims or to reimburse or compensate the Respondent or any of its Team Members in any manner whatsoever including but not limited to costs of preparation of the Response, loss of anticipated profits, loss of opportunity or any other matter;
- b. the Respondent and each of its Team Members waive any Claim for loss of profits or loss of opportunity if the Respondent is rejected or Disqualified or is not successful in being short listed in the Procurement Process; and
- c. with respect to circumstances not listed at section 4(a) and section 4(b) above, the Respondent and each of its Team Members will not make any Claim against the Government or its employees, advisors or representatives in excess of an amount equivalent to the reasonable costs of preparation of the Response for any matter relating to the RFQ, the Project or the Procurement Process.

**TEAM MEMBER FIRM**

**TEAM MEMBER FIRM**

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Name of Team Member Firm

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Name of Team Member Firm

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Name of Authorized Signatory

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Name of Authorized Signatory

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Signature

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Signature

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**TEAM MEMBER FIRM**

**TEAM MEMBER FIRM**

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Name of Team Member Firm

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Name of Team Member Firm

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Name of Authorized Signatory

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Name of Authorized Signatory

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Signature

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Signature

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[FORM A CONTINUED]

**INDIVIDUAL TEAM MEMBER** (if any)

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Name of individual Team Member

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Name of Authorized Signatory

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Signature

**INDIVIDUAL TEAM MEMBER** (if any)

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Name of individual Team Member

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Name of Authorized Signatory

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Signature

**INDIVIDUAL TEAM MEMBER** (if any)

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Name of individual Team Member

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Name of Authorized Signatory

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Signature

**INDIVIDUAL TEAM MEMBER** (if any)

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Name of individual Team Member

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Name of Authorized Signatory

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Signature

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## 8. FORM B: CONTACT DETAILS AND RESPONDENT FORM

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*At the time of contract award, at least one Team Member must be a duly organized, validly existing legal entity entitled to carry on business in Yukon with the power and capacity to enter into the Project. Please clearly indicate the Team Member who meets these requirements.*

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Business Name of Respondent

### **RESPONDENT'S REPRESENTATIVE**

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Name

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Company or Firm

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Address

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Telephone

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Fax Number

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Email Address

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[FORM B CONTINUED]

*Copy and complete the form below for the Respondent (if it is a distinct legal entity) and all Team Members including:*

- (1) all of the firms comprising the Respondent;*
- (2) other individuals comprising the Respondent who are not covered above [NOTE: INDIVIDUALS ARE NOT REQUIRED TO COMPLETE THE SHADED SECTIONS]; and*
- (3) all advisor firms or individual [NOTE: INDIVIDUAL ADVISORS ARE NOT REQUIRED TO COMPLETE THE SHADED SECTIONS] to the Respondent.*

**STATUS** (for example:

- *firm;*
- *individual; or*
- *advisor firm or individual advisor to the Respondent.)*

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Name (for a firm, please provide incorporation/registration name)

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Type of Entity

*(type of corporation, partnership, consortium etc)*

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Jurisdiction of Incorporation/Registration

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Primary Business

*(engineering, construction, finance, legal, etc)*

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Address

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Telephone number

*(if further information is required)*

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