HUDSON'S HOPE
PLAYGROUND OF THE PEACE

# Request for Proposals: Post Clarification Media Filtration System

RFP No. 26-04

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# 1 Project Overview

The District of Hudson's Hope (the District) invites proposals from qualified proponents for the design, supply, delivery, and commissioning support of media filtration vessels and associated equipment for installation at the District's Water Treatment Plant located at 10001 Dudley Drive, Hudson's Hope, BC.

The District's treatment process uses surface water from the Peace River / Site C reservoir and includes the following treatment train:

**Source water → polymer and coagulant dosing → clarifier → media filtration → cartridge filtration → UV disinfection → sodium hypochlorite disinfection**

As part of this project, the District intends to remove the existing media filtration skid and replace them with new media filtration equipment. The proposed system will be installed downstream of the clarifier and upstream of the cartridge filtration equipment as is consistent with the existing treatment process at the District's plant.

The District is seeking a media filtration solution that is efficient, reliable, and operationally flexible.

# 2 Scope of Work

The successful proponent shall provide all labour, materials, equipment, documentation, and services necessary for the supply, delivery, and commissioning support of the proposed media filtration system, as a pre-packaged skid ready for "plug-and-play" within the existing filter space.

## 2.1 Equipment

The successful proponent shall supply, at minimum:

a) Shop drawings of the proposed system for review prior to manufacture
b) media filtration vessels
c) all associated valves and appurtenances
d) all required filtration media
e) remote electrical control panel
f) instrumentation and controls included as part of the proposed system
g) vessel internals and associated components required for proper operation
h) Factory Acceptance Testing (FAT) of all supplied components prior to shipping
i) commissioning requirements and all checklists for wet testing of the system prior to full commissioning

j) all other components reasonably required for a complete and operable system, whether specifically listed or reasonably implied

## 2.2 Delivery

The successful proponent shall deliver all supplied equipment to the District's water treatment plant at 10001 Dudley Drive, Hudson's Hope, BC.

The successful proponent shall ensure all equipment is packaged, protected, and shipped in a manner suitable for the equipment type, shipping distance, and site conditions, so as to prevent damage during transport, unloading, storage, and handling prior to installation.

The successful proponent shall clearly identify any special unloading, handling, storage, or environmental requirements applicable to the supplied equipment.

Upon delivery to the District's designated location, the equipment may be received by the District or by the District's installer on the District's behalf for the purposes of unloading, inspection, storage, and installation.

Receipt of the equipment at the delivery location does not relieve the proponent of responsibility for any non-conformance, shipping damage, or deficiency that is identified upon inspection or during subsequent installation or start-up.

## 2.3 Commissioning Support

Although installation will be completed by others, the successful proponent shall provide commissioning support for the supplied system.

Commissioning support shall include, at minimum:

a) commissioning plan and required checklists for all supplied equipment
b) review of installation readiness for the supplied equipment
c) review of installation prerequisites for the supplied equipment
d) attendance on site, as proposed, to support start-up of the supplied equipment
e) functional verification of the supplied equipment
f) identification of deficiencies or issues affecting start-up or operation of the supplied equipment
g) recommendations for corrective actions where deficiencies are identified
h) confirmation that the supplied equipment is ready for operation in accordance with the proponent's stated design assumptions, subject to proper installation by others and integration with upstream and downstream systems.

## 2.4 Training

The successful proponent shall provide operator training covering, at minimum:

a) system overview
b) normal operation
c) backwash operation
d) alarm and control functions
e) routine maintenance
f) troubleshooting and recommended spare parts.

## 2.5 Documentation

The successful proponent shall provide:

a) shop drawings
b) equipment data sheets
c) MSDS sheets for supplied media
d) wiring and control documentation
e) commissioning support documentation and checklists
f) operations and maintenance manuals
g) warranty documentation.

## 2.6 Installation by Others

Installation of the supplied equipment, including field piping, electrical interconnections, mounting, anchoring, and integration into the plant, will be completed by others.

The proponent shall clearly identify:

a) installation requirements
b) utility requirements
c) interface points
d) installation tolerances or prerequisites required for commissioning support
e) any activities that must be performed by, or under the supervision of, the proponent in order to maintain warranty coverage

# 3 Design Basis and Performance Requirements

The proposed filtration system shall be designed based on the requirements set out in this section and the information provided in the appendices.

## 3.1 Existing Treatment Process

The proposed media filtration system will replace the District's existing media filtration skid and will be installed downstream of the clarifier and upstream of the cartridge filtration equipment within the District's existing treatment plant.

## 3.2 Source Water and Chemical Additions

The source water for the District's water treatment plant is surface water drawn from the Peace River / Site C Reservoir.

The District currently uses the following treatment chemicals upstream of the clarifier to support coagulation and clarification:

a) Coagulant: Hydrex 3223, 32% Aluminum, water soluble salts, by weight
b) Polymer: Hydrex 3543, 88% Acrylamide copolymer, by weight

Downstream disinfection:

c) Sodium hypochlorite: 12%

Additional historical raw water, clarified water, and treated water quality information is provided in Appendix B – Water Quality Data.

For background and reference purposes only, the District has also included the current draft plant control narrative, P&IDs, and mechanical drawings in Appendix C – Reference Information. In the event of any inconsistency between those reference documents and this RFP, the requirements of this RFP shall govern.

## 3.3 Turbidity and Treatment Objectives

The proposed system shall be suitable for operation under normal raw water conditions, including occasional short-duration turbidity spike events. Typically, normal turbidity ranges from 1.5 to 3.0 NTUs. Turbidity spikes of raw water can be as high as 25-40 NTUs. The Clarifier typically discharges clarified water with turbidity readings between 0.4 and 0.6 NTUs, but operations allow for clarifier bypass for maintenance and emergency situations, so the media filtration system must be able to accept and treat raw water to discharge less than 0.3 NTU.

While the District may divert or waste influent water that exceeds defined turbidity thresholds in accordance with the plant control narrative, the proposed system shall be sufficiently robust to accommodate occasional turbidity spikes without damage to the filtration media or unacceptable reduction in performance or media service life.

The primary treatment objective for the proposed media filtration system is the reliable removal of residual turbidity and particulate carryover from upstream clarification,

consistent with applicable drinking water treatment requirements for surface water. The proposed system should also be suitable for the source water quality conditions identified in the historical data provided, including constituents that may affect treated water quality, operability, or media performance.

A summary of historical turbidity data for the period from May 2023 through April 2026 is provided below.

*Table 1: Summary of Historical Turbidity Data, May 2023 to April 2026*

| | Turbidity (NTU) | | | | | |
|---|---|---|---|---|---|---|
| | Raw Water | | | Clarified Water | | |
| | Average | Minimum | Maximum | Average | Minimum | Maximum |
| January | 1.52 | 1.41 | 3.79 | 0.494 | 0.464 | 3.11 |
| February | 1.36 | 1.27 | 15.4 | 0.545 | 0.516 | 5.41 |
| March | 1.23 | 1.12 | 3.19 | 0.478 | 0.451 | 1.74 |
| April | 0.84 | 0.79 | 6.46 | 0.361 | 0.339 | 1.35 |
| May | 2.89 | 2.73 | 20.2 | 0.570 | 0.511 | 3.63 |
| June | 2.04 | 1.83 | 38.5 | 0.487 | 0.445 | 4.5 |
| July | 1.53 | 1.43 | 18.5 | 0.463 | 0.415 | 5.41 |
| August | 1.35 | 1.25 | 5.85 | 0.429 | 0.393 | 4.29 |
| September | 1.33 | 1.14 | 5.05 | 0.413 | 0.375 | 5 |
| October | 1.55 | 1.29 | 9.6 | 0.427 | 0.389 | 8.46 |

The maximum long-duration turbidity expected in the source water is less than 20 NTUs.

## 3.4 Hydraulic and Production Requirements

The proposed filtration system shall:

a) be suitable for operation at an inlet pressure of 40 psi
b) be designed such that the outlet pressure is not less than 33 psi under the proponent's stated operating assumptions
c) provide the firm net production at 1,500 $m^3$/day, with at least 50% redundancy. That is, if there a three vessels supplied, for example, two vessels must be capable of maintaining firm net production capacity of 1,500 $m^3$/day.
d) identify the highest achievable net production up to 2,000 $m^3$/day. This capacity may be required from time to time, and can be achieved without redundancy with all vessels on line at one time.
e) Seasonal variations in water demands require a minimum filtration capacity of 500 $m^3$/day

For the purposes of this RFP, net production means finished water available to the treatment process after deducting losses associated with backwash, filter-to-waste, ripening, maintenance downtime, and any other process water consumption attributable to the filtration system.

## 3.5 Operational Flexibility Requirements

A major objective of this procurement is to obtain a filtration system that provides strong operational flexibility, system redundancy, and efficient performance.

The District requires the proponent to recommend the most appropriate number of vessels and operating configuration to achieve these objectives. The proposed system should be configured to provide practical flexibility for operation, maintenance, and backwashing while maintaining plant service to the extent reasonably achievable. To this end, while the existing filter skid is comprised of 4 – 1500mm diameter carbon steel vessels, proponents can propose other configurations with the intent of maximizing the operating space within the existing media filter room.

In particular, the proponent shall describe whether the proposed system can support:

a) Operation with one or more vessels offline while the plant continues to operate
b) Backwashing of one vessel while the remaining vessel or vessels continue in service
c) Operation with one vessel out of service for maintenance or repair without requiring a full plant shutdown
d) Efficient operation during periods of low system demand, including the ability to operate only one or two vessels where appropriate; and
e) Any other operating modes or vessel configurations that improve flexibility, reliability, redundancy, or efficiency.

The proponent shall clearly demonstrate how the proposed system and recommended vessel configuration support operational flexibility, maintenance without unnecessary plant shutdown, backwashing while maintaining service where feasible, and efficient operation under varying demand conditions.

## 3.6 Media Requirements

The proponent shall recommend the most suitable filtration media for the proposed system.

The proposal shall identify the recommended media type, gradation, depth, and any other relevant characteristics, and shall explain the basis for the recommendation, including any assumptions or requirements regarding influent quality, flux rate, backwash requirements, ripening, and operational considerations.

### 3.7 Facility Constraints

The proposed system shall fit within the physical constraints of the existing facility. Any proposed configurations that are larger than the existing system must be clearly identified in the proposal with appropriate justification, as well as appropriate space for maintenance of all other systems in the media filter room.

Relevant dimensional, access, and space information is provided in **Appendix A**. Proponents shall confirm that the proposed system, including required operating and maintenance clearances, can be accommodated within the available space.

### 3.8 Technical Requirements

The proposed system shall meet the following minimum technical requirements:

a) All components must meet the requirements of NSF/ANSI/CAN 61standards for potable water systems
b) all piping shall be stainless steel, Schedule 10 or higher required for potable water systems
c) valves supplied as part of the proposed system shall be Bray valves or an approved equivalent suitable for use with motorized actuators
d) any request for approval of an equivalent valve must be submitted in writing prior to the deadline for inquiries and must include sufficient supporting technical information to allow the District to evaluate the proposed equivalent
e) if the District accepts an equivalent, the acceptance will be confirmed by written addendum
f) equivalent equipment not approved by addendum prior to the Closing Date and Time will not be accepted.

## 4 Proposal Requirements

The proposal shall be organized in the same order as this section and shall include sufficient detail to allow the District to properly evaluate the proposal.

The proposal shall include, at minimum, the following:

a) cover letter signed by an authorized representative
b) company profile and relevant experience
c) technical proposal
d) commissioning support and training approach
e) delivery schedule
f) completed price form

g) list of assumptions
h) list of exclusions

# 5 Technical Submission Requirements

The proponent shall provide, at minimum, the following technical information:

a) number of vessels proposed
b) dimensions of each vessel
c) overall system footprint
d) required installation, operating and maintenance clearances
e) recommended filtration media, including type, depth, gradation, and rationale
f) design flow rates and filtration rates
g) backwash requirements, including flow rate, pressure, duration, volume, and frequency
h) expected pressure loss through the system, including expected outlet pressure
i) expected net production under the proposed operating configurations
j) control philosophy or sequence of operation
k) electrical requirements
l) required instrumentation
m) layout or dimensional drawings
n) operating modes available to support flexibility and redundancy
o) recommended spare parts.

Where the proponent recommends a specific vessel arrangement or operating strategy, the proponent shall clearly explain the rationale for that recommendation.

# 6 Pricing and Commercial Submission

## 6.1 Pricing

The proponent shall provide a detailed price submission identifying:

a) equipment supply price
b) filtration media price
c) electrical control panel price
d) commissioning support and training price
e) delivery price
f) optional items, if any
g) recommended spare parts pricing

h) taxes shown separately.

### 6.2 Exclusions

The proponent shall clearly identify all exclusions.

Failure to clearly identify an exclusion may be interpreted by the District as meaning the item is included where reasonably required for a complete and operable system.

## 7 Evaluation Criteria

Proposals will be evaluated using the following weighted criteria:

| | |
|---|---|
| Technical suitability and proposal completeness | 25 points |
| Efficiency and production performance | 20 points |
| Operational flexibility and redundancy | 20 points |
| Media recommendation and technical rationale | 10 points |
| Fit within facility constraints | 10 points |
| Commissioning support and training | 5 points |
| Experience and references | 5 points |
| Price | 5 points |
| **Total Available** | **100 points** |

The District may seek clarification from proponents where necessary to support evaluation.

## 8 Procurement Process

### 8.1 RFP Schedule

The anticipated procurement schedule is as follows:

| | |
|---|---|
| Issue Date: | April 13, 2026 |
| Deadline for Inquiries: | May 5, 2026 at 2:00PM Local Time |
| Closing Date and Time: | May 15, 2026 at 2:00PM Local Time |
| Estimated Evaluation Period: | One week |
| Estimated Award Date: | June 3, 2026 |

### 8.2 Inquiries

All inquiries regarding this RFP shall be submitted in writing, prior to the deadline for inquiries, by email, to the District's Director of Public Works & Engineering at desiree@hudsonshope.ca

### 8.3 Addenda

Any interpretation, clarification, or change to this RFP shall be issued by written addendum.

### 8.4 Proposal Irrevocability

Proposals shall remain irrevocable for 60 days following the Closing Date and Time.

### 8.5 District Rights

The District reserves the right to:

a) reject any or all proposals
b) waive minor irregularities
c) cancel this RFP at any time
d) request clarification or additional information
e) verify proposal information
f) negotiate with one or more proponents in accordance with this RFP.

The District is not obligated to accept the lowest-priced proposal or any proposal.

## 9 Submission Instructions

Proponents shall submit their proposals in one of the following formats:

### 9.1 Email Submission

Proposals may be submitted by email in PDF format to:

desiree@hudsonshope.ca

The subject line of the email must clearly state:

**Sealed Proposal – RFP 26-04 Water Filtration System**

The maximum email file size shall not exceed **15 MB**.

### 9.2 Hard Copy Submission

Proposals may also be submitted by hand delivery or courier in hard copy to:

District of Hudson's Hope
9904 Dudley Drive
Hudson's Hope, BC V0C 1V0

The submission envelope must be clearly marked:

**Sealed Proposal – RFP 26-04 Water Filtration System**

### 9.3 Submission Deadline

Proposals must be received by the District no later than:

May 15, 2026 at 2:00 PM local time

Late submissions may not be accepted.

### 9.4 Proponent Responsibility

It is the sole responsibility of the proponent to ensure that its proposal is received by the District before the submission deadline, regardless of the method of delivery.

## 10 Contract Terms

The successful proponent will be required to enter into an agreement with the District on terms acceptable to the District.

The final agreement shall, at minimum, address the scope of work, delivery requirements, commissioning support, training, documentation, warranty, insurance, indemnity, limitations and exclusions, payment terms, delays, force majeure, title and risk, and dispute resolution.

Any proposed limitations, exclusions, qualifications, assumptions, or other contractual exceptions must be clearly identified in the proposal. The District is not obligated to accept any such term.

The District may consider an advance payment following execution of the contract, subject to the terms and conditions of the final agreement. Any such payment shall be at the District's sole discretion and shall be subject to conditions satisfactory to the District.

Unless otherwise agreed in the final contract, title to the supplied equipment shall pass to the District upon receipt at the District's designated delivery location, and risk of loss or damage shall remain with the successful proponent until that time.

Where the equipment is received, unloaded, stored, or handled by the District's installer on the District's behalf after delivery, the installer shall be deemed to have care, custody, and control of the equipment for installation purposes, but shall not obtain title to the equipment.

Proponents may include their standard purchase, supply, or service agreement for the District's review; however, the District is not obligated to accept the proponent's standard terms and conditions.

# Appendix A – Site Information

Included as separate attachment

# Appendix B – Water Quality Data

## Raw, Clarified, Treated, and Waste Stream Information

Included as separate attachment

# Appendix C – Reference Materials

## Draft Control Narrative, P&IDs, Mechanical Drawings

Included as separate attachment