#### WHATCOM COUNTY CONTRACT INFORMATION SHEET

Whatcom County Contract No. 2019 05009-1

	D. L.F. Maril					
Originating Department:	Public Works					
Division/Program: (i.e. Dept. Division and Program)	Stormwater-907620					
Contract or Grant Administrator:	Cathy Craver					
Contractor's / Agency Name:	Herrera Environmental Consultants					
Is this a New Contract? If not, is this an Amendment or Rer Yes O No O If Amendment or Renewal, (per V	newal to an Existing Contract?  VCC 3.08.100 (a)) Original Contract #:  Yes O  201905009					
Does contract require Council Approval? Yes O No O Already approved? Council Approved Date:	If No, include WCC:  (Exclusions see: Whatcom County Codes 3.06.010, 3.08.090 and 3.08.100)					
Is this a grant agreement?  Yes   No   If yes, grantor agency contract						
Is this contract grant funded?  Yes O No O If yes, Whatcom County grant	contract number(s):					
Is this contract the result of a RFP or Bid process?  Yes  No  No  If yes, RFP and Bid number(s):  RFQ	Contract  18-01 Cost Center: 10860.544410					
Is this agreement excluded from E-Verify? No O Yes 💿	If no, include Attachment D Contractor Declaration form.					
amount and any prior amendments):  \$ 99,821.00  This Amendment Amount:  \$ 40,000, and than \$10,000 than \$10,0	ofessional.  Contract for Commercial off the shelf items (COTS).  Work related subcontract less than \$25,000.  Public Works - Local Agency/Federally Funded FHWA.  oval required for; all property leases, contracts or bid awards exceeding professional service contract amendments that have an increase greater or 10% of contract amount, whichever is greater, except when:  ag an option contained in a contract previously approved by the council.  is for design, construction, r-o-w acquisition, prof. services, or other					
\$ 65,135.00 capital co	osts approved by council in a capital budget appropriation ordinance.					
	vard is for supplies. nt is included in Exhibit "B" of the Budget Ordinance.					
	is for manufacturer's technical support and hardware maintenance of					
	c systems and/or technical support and software maintenance from the r of proprietary software currently used by Whatcom County.					
Contract amendment to expand scope of existing co Bioinfiltration Swale Evaluation of the Geneva Retro						
Term of Contract:	Expiration Date: 12/31/2020					
Contract Routing: 1. Prepared by: Cathy Craver	Date: 10/15/19					
2. Attorney signoff: Christopher Quinn	Date: 10/16/2019					
3. AS Finance reviewed: Brad Bennett	Date: 10/18/19					
4. IT reviewed (if IT related):	Date:					
5. Contractor signed: 6. Submitted to Exec.:	Date: 10-22-19					
6. Submitted to Exec.:  7. Council approved (if necessary):	Date: 10 - 28-19					
8. Executive signed:	Date: 11. 6.19 Date: 11. 8.19					
9. Original to Council:	Date: 11-15-19					

#### COUNTY ORIGINAL

Whatcom County Contract No.

201905009-1

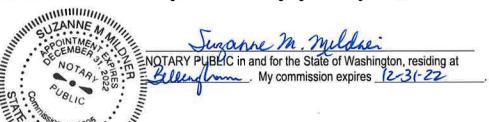
### Amendment No.\_\_\_1\_\_ Whatcom County Contract No. 201905009 CONTRACT BETWEEN WHATCOM COUNTY AND Herrera Environmental Consultants

THIS AMENDMENT is to the Contract between Whatco dated May 22, 2019 and designated consideration of the mutual benefits to be derived, the p	I "Whatcom County Contract No. 201905009 ". In
This Amendment extends the term of this Agreement the the maximum consideration by \$_65,135to a tot	rough <u>December 31, 2020</u> , and increases
This Amendment also adds the following to the Scope o	f Work, Exhibit A:
Unless specifically amended by this agreement, all othe in full force and effect.	r terms and conditions of the original contract shall remain
This Amendment takes effect: November 6, 2019	_, regardless of the date of signature.
IN WITNESS WHEREOF, Whatcom County andthis Amendment on the date and year below written.	Herrera Environmental Consultants have executed
DATED this 22 day of October	, 20 19.
CONTRACTOR:	
Herrera Environmental Consultants	
Christopher Webb, PE, Principal	
STATE OF WASHINGTON )	
) ss. COUNTY OF WHATCOM )	
On this 22 day of october, 2019, before me personally appeared of the Herre	d Christopher webb to me known to be the Principal and who executed the above instrument and who
acknowledged to me the act of signing and sealing thereof.	
ANE M FORM	NOTADY PUBLIC in and for the State of Washington
O'N TO THE REAL PROPERTY OF THE PARTY OF THE	NOTARY PUBLIC in and for the State of Washington,
18 ····································	Diane M. Ford printed name, residing at Bellingham.
STA	My commission expires 3-6-21.

## WHATCOM COUNTY: Recommended for Aproval: By: 10/24/19 Jon Hutchings, Public Works Director Date Approved as to form:

## Senior Deputy Prosecuting Attorney-Civil Division Date

Approved: Accepted for Whatcom County:
By:
STATE OF WASHINGTON ) ss
COUNTY OF WHATCOM )



#### CONTRACTOR INFORMATION

Herrera Environmental Consultants John Lenth, Water Practice Director

114 W. Magnolia St., Suite 504 Bellingham, WA 98225

Contact Name: Chris Webb Contact Phone: (360) 398-5075 Contact FAX: (206) 441-9108

Contact Email: cwebb@herrerainc.com

#### **EXHIBIT A**

#### **COMPREHENSIVE BIOINFILTRATION SWALE EVALUATION –**

#### Scope of Work Amendment #1

Whatcom County requested expanding the services to be provided under the original contract #201905009 to include the following additional tasks under a contract amendment:

- Task 5.0 –.....Analysis of Coronado-Freemont Swale
- Task 6.0 ......Analysis of Geneva Area Filter Vaults

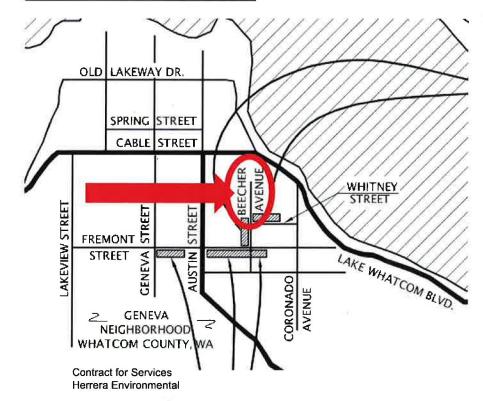
#### **Project Assumptions**

- Outreach and communication with adjacent land owners and other stakeholders will be led by the County with support from Herrera as requested.
- The hours per person in the attached budget template are intended to describe the anticipated level of effort, but it is understood that the hours and costs shown in this task may be reallocated to perform the tasks requested by the County.

#### Task 5.0 - Analysis of Coronado-Freemont Swale

The following map shows the project location, as indicated by the ellipse. The multi-cell "swale" being evaluated under this task are all water quality treatment cells within the Beecher Avenue Right of Way between Freemont and Whitney Streets. Herrera will evaluate the existing as-built conditions of this swale, assess its performance and present this to the County to support its effectiveness evaluation requirements under their NPDES permit.

#### Coronado-Freemont Phase 1 Swale:



#### Task 5.1 - Facility Design Review, Basin Delineation & Modeling

Herrera will perform a site visit, review the design documents for the subject facilities, and then delineate the tributary areas in GIS using LiDAR contours and County-provided GIS stormwater conveyance network data. Herrera will then ground truth and finalize the tributary basin delineations and produce tributary basin maps and tables of land cover for each facility. Herrera will then perform hydrologic modeling for the subject facilities based on the basin delineations prepared to determine the expected flow regime for each facility. Herrera will review the media specification, observe the media in the field, and assess its similarity to the technical guidance manuals published at the time of the projects' design and the media observed in the Geneva swales being evaluated under Task 2.

#### **Assumptions**

- County will provide the design documents for the subject facilities and GIS data for the project areas.
- Modelling will be performed in either WWHM or MGSFlood

#### Task 5.2 - Existing Conditions Technical Memo

Herrera will analyze these swales to the same level of detail and in the same manner as the Geneva swales identified in the original contract. Herrera will detail any differences between observations, simulation results, and previous assumptions obtained from existing design and construction documents. All review and analysis data will be added to the technical memorandum already being developed under Task 2.

#### **Assumptions**

 This work will be presented in the Existing Conditions Technical Memo (Task 2) for the whole project.

#### **Deliverable**

• All data collected, analysis performed, and recommendations developed as part of this task will be added to the technical memoranda created for Tasks 2 through 4 from the original contract.

#### Task 5.3 - Media Testing and Swale Monitoring

Herrera will evaluate the existing media in this multi-cell swale for water quality performance. If the cells are not meeting target infiltration rates and appear to be sized properly, then either the media was not specified or placed properly, or the infiltration rate has been degraded by sedimentation or over compaction. To assess the infiltration performance, in-situ infiltration testing will be conducted with single ring infiltration tests at a representative set of locations in the swale.

Water quality treatment performance will also be evaluated. Initially, grab samples to determine influent and effluent chemistry will be collected on 4 occasions and analyzed for total suspended solids, particle size distribution, total and dissolved copper and zinc, total phosphorus, and orthophosphate. Herrera will also collect a maximum of four representative columns of media to perform water quality performance testing in the lab. Herrera may also collect 3 samples of the media (from 6- and 12-inch

depths) from locations in the upper and lower swale sections and analyze them for OM content and grain size.

#### **Assumptions**

- Herrera will have access to the swales and structures for testing and inspection.
- Whatcom County will keep Herrera informed of any maintenance or other activities that may influence swale performance evaluations.
- Herrera will perform 6-12 infiltration tests in the cells
- There will be no deliverables under this task, all collected data will be synthesized and reported under task 6.3.

#### Task 5.4 -Reporting

Herrera will produce a technical memorandum that summarizes the work performed and data collected and provides recommendations to the County for any design or O&M changes. The memorandum will be targeted to meet the NPDES permit requirements for performance assessment.

#### **Deliverable**

 Technical Memorandum transmitting all data collected, analysis performed, and recommendations developed as part of this task.

#### Task 6.0 - Analysis of Geneva Area Filter Vaults

Herrera will begin this task with a kick-off meeting with County staff. Herrera will then evaluate the insitu performance of a representative number of stormwater filtration vaults for the removal of target pollutants including phosphorus. Herrera will review Whatcom County's filter vault asset list and select 3 vaults for detailed assessment. These facilities will be selected to best represent the County's total filter vault asset class in the watershed.

#### **Assumptions**

 Some early action items for this task were performed under the original contract in advance of the execution of the amendment covering this task, and will be used in the vault analysis report.

#### Task 6.1 -Kick-off, Facility Design Review, Basin Delineation & Modelling

Herrera will perform a site visit, review the design documents for the selected vaults and then delineate the tributary areas in GIS using LiDAR contours and County-provided GIS stormwater conveyance network data. Then Herrera will ground truth and finalize the tributary basin delineations and produce tributary basin maps and tables of land cover for each facility. Herrera will then perform hydrologic modeling for the subject facilities based on the basin delineations prepared to determine the expected flow regime for each facility.

#### **Assumptions**

- The County will provide the design documents for the subject facilities and GIS data for the tributary basins.
- Modelling will be performed in either WWHM or MGSFlood

#### **Deliverables**

- Kick-off meeting & site visit
- Basin Maps
- Modeling results

#### Task 6.2 -Records Review and In-Situ Testing

Herrera will review any maintenance records provided by the County and interview County maintenance staff to gain qualitative insight into the performance of the filter vaults.

Herrera will visit each of the 3 filter vaults quarterly to assess hydraulic performance over one year (one maintenance cycle). At each quarterly assessment, Herrera will perform the following testing:

- 1. Visual inspection including measurement of accumulated sediment depth in the vault.
- 2. Hydraulic flow test with a contracted water truck. This test will entail discharging variable metered flows into the facility until the water level stabilizes at the bypass elevation. The associated flow rate will be compared with the design flow rate to assess system hydraulic performance.

Herrera will also target 3 storm events over the water year to collect water quality grab samples at the inlet and outlet of the 3 selected vaults. Only events where bypass is not occurring will be targeted as bypass flows may mix with treated flows and bias results. The samples will be analyzed for: total suspended solids, total and dissolved copper and zinc, total phosphorus, and orthophosphate.

#### **Assumptions**

- Herrera will have access to the vaults for testing and inspection.
- There will be no deliverables under this task, all collected data will be synthesized and reported under task 6.3

#### Task 6.3 - Analysis and Reporting

Herrera will produce a technical memorandum that summarizes the work performed and data collected and provides recommendations to the County for any design or O&M changes. The memorandum will be targeted to meet the NPDES permit requirements for performance assessment.

#### Deliverable

 Technical Memorandum transmitting all data collected, analysis performed, and recommendations developed as part of this task.

#### Herrera Environmental Contract for Services

### EXHIBIT B

## HERRERA ENVIRONMENTAL CONSULTANTS

Cost Estimate for Comprehensive Bioswale, Evaluation Project Amendment #1

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BUDGET NARRATIVE:

Contract amounts shall not exceed the total budget referenced above. As consideration for services provided in Exhibit A. Scope of Work, the County agrees to compensate the contractor according to the actual billing rates of personnel working on the project, within the ranges provided in the Billing Rates in Exhibit B-1. Other reasonable expenses in curred in the course of performing the duties herein shall be reimbursed, including mileage at the current IRS rate. Lodging and per diem shall not exceed the GSA rate for the location where services are provided. Other expenditures such as printing, postage, and tatephone charges shall be reimbursed at actual cost plus 10%. Expense reimbursement requests must be accompanied by copies of paid invoices. Any work performed prior to the effective date or continuing after the completion date of the contract, unless otherwise agreed upon in writing, will be at the contractor's expense.

## EXHIBIT B-1

## Herrera Environmental Consultants, Inc.

# Comprehensive Bioswale Evaluation Project Amendment #1

0/A1/A2/A3/A, IT Technician I, II, III, IV	A5/A6 Marketing	A2/A3 Administrat	t:1/F2/F3/F4/FI Accounting	PO Intern	P1 Engineer I	P2 Engineer II	P3 Engineer	P4 Engineer N	PS Engineer V	0 Engineer V	P7 President,			
an I, II, III, IV	Marketing Specialist V, VI	Administrative Coordinator III, IV/ HR Generalist IV	Accounting Administrator I, II. III. IV, V		Engineer 1/Scientist 1/Planner 1/Analyst 1	Engineer II / Scientist II / Planner II / Landscape Architect II / Analyst II	Engineer III/ Scientist III/ Planner III/ Landscape Architect III/ CAD Technician III/ Analyst III	Engineer IV/ Scientist IV/ Planner IV/ Landscape Architect IV/ Analyst IV	Engineer V / Scientist V / Planner V / Analyst V	Engineer VI, Scientist VI, Planner VI	President, Executive Vice President. Vice President	Labor Category		2019 Herrera Labor Rate Schedule
50.89	122.30	89.10	74.80	50.89	76,30	82.68	108.39	130.48	136_89	205.92	214.78	Minimum	* Inclusive Hourly Billing Rate	
160.30	214.37	96.18	156.13	74.80	94.40	112.21	155.91	184.16	218,00	216.33	262.03	Maximum	Inclusive Billing Rate	

Herrera adjusts salaries annually in January. Maximum DL rate includes a 5% escalation.

#### WHATCOM COUNTY PUBLIC WORKS DEPARTMENT

Jon Hutchings Director



#### STORMWATER

322 N. Commercial, Suite 224 Bellingham, WA 98225 Main: (360) 778-6210

FAX: (360) 778-6201 www.whatcomcounty.us

#### MEMORANDUM

RECEIVED

OCT 2 8 2019

TO:

The Honorable Jack Louws, County Executive and

The Honorable Members of the Whatcom County Council

JACK LOUWS COUNTY EXECUTIVE

THROUGH:

Jon Hutchings, Public Works Directory

FROM:

Kraig Olason, CMP, Stormwater Program Manager KO

Cathy Craver, CSM, Senior Planner

DATE:

October 18, 2019

RE:

Amendment to contract #201905009 with Herrera Environmental

Consultants for a scope expansion of the Comprehensive Bioinfiltration Swale Evaluation of the Geneva Retrofits

#### **Requested Action**

Please find attached for your review and approval two (2) originals of a contract amendment for services between Herrera Environmental Consultants (Herrera) and Whatcom County for a scope expansion of the existing contract #201905009 for the Comprehensive Bioinfiltration Swale Evaluation of the Geneva Retrofits.

#### **Background and Purpose**

Herrera was hired to assess the current function and effectiveness of the Geneva retrofit facilities as part of the Lake Whatcom Total Maximum Daily Load (TMDL).

The purpose of the scope expansion is to include two other stormwater treatment facility types (filter vaults and a more current swale with enhanced media) to complete a TMDL requirement to assess effectiveness of the different types of built stormwater treatment facilities utilized by Whatcom County.

#### **Funding Amount and Source**

The amendment in the amount of \$65,135 will be funded through the NPDES (10860) budget.

Please contact Cathy Craver at extension 6299, if you have any questions or concerns regarding the terms of this agreement.

Encl.