# LEARNING BY DOING

## REQUEST FOR PROPOSALS FOR MACROINVERTEBRATE BIOASSESSMENT

Release Date: June 24, 2019 Proposal Deadline: July 22, 2019 at 10:00 a.m. M.T.

Grand County Learning By Doing (LBD) is a collaborative stakeholder group made up of water utilities, state and local government agencies, and nonprofit organizations, who are establishing a new paradigm for managing aquatic resources in Grand County. LBD meets regularly to monitor river health and undertake projects to enhance and restore Grand County streams. The partners of LBD are working together in an effort to help solve water resource management problems. LBD, Inc. is a non-profit corporation licensed in the State of Colorado.

# **Request for Proposals**

LBD, Inc. is soliciting proposals from qualified firms to conduct macroinvertebrate bioassessments to determine the health of macroinvertebrate communities in the Colorado, Fraser and Williams Fork River Basins, upstream of the Colorado River confluence with the Blue River. Collectively, this focal geographic area is referred to as LBD's cooperative effort area (CEA). The project will consist of three components: 1) sampling, 2) analysis, and 3) reporting. Any portion of the work may be outsourced, but proposals must address both sampling and analysis of macroinvertebrates. The objective of the sampling component is to complete macroinvertebrate sampling during September/October of 2019 at 10 sites located within the CEA (Figure 1; Table 1).

In addition to the proposal for the macroinvertebrate bioassessment, the consultant has the option to submit a proposal for sediment sampling as defined in Appendix B: Request for Proposals for Sediment Sampling. Proposals for sediment sampling are not required, however due to the efficiencies in contracting and field work, preference may be given to joint proposals. The RFP for Sediment Sampling is being issued separately by LBD with the same release date and deadline as the RFP for Macroinvertebrate Bioassessment. Because of the Water Quality Control Division (WQCD) listing methodology requirement that paired sediment and macroinvertebrate samples be collected within 2 weeks of one another (WQCD 2019), LBD asks that the sediment sampling contractor coordinate timing of sample collection with the macroinvertebrate bioassessment contractor(s).

The details and scope of the LBD macroinvertebrate monitoring program are presented herein with instructions for preparing a complete proposal.

## **Monitoring Sites**

The 2019 LBD macroinvertebrate monitoring program consists of 10 sites: 3 sites in the Colorado River, 3 sites in the Fraser River, 1 site in a Fraser River tributary (Ranch Creek) and 3 sites in the Williams Fork River. Figure 1 and Table 1 illustrate these LBD macroinvertebrate sampling site locations within the CEA.

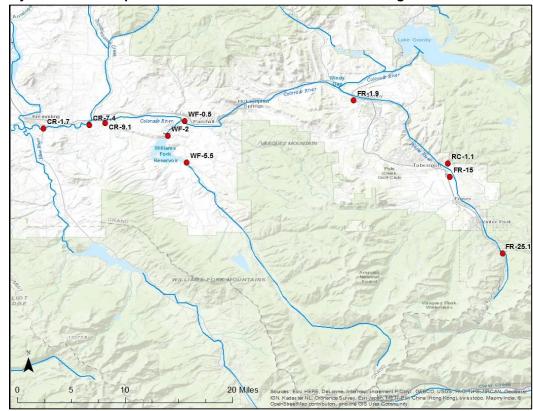


Figure 1. Project Location Map of 2019 LBD Macroinvertebrate Monitoring Sites

Table 1. 2019 LBD Macroinvertebrate Monitoring Sites

Station ID	Station Description	Latitude	Longitude
FR-25.1	Fraser River upstream of UP Moffat Tunnel discharge	39.8775	-105.7535
FR-15	Fraser River upstream of Fraser Flats restoration	39.9813	-105.8249
FR 1.9	Fraser River upstream of Granby Sanitation District	40.0845	-105.9546
RC-1.1	Ranch Creek downstream of Meadow Creek	39.9991	-105.8275
CR-9.1	Colorado River at CR39 Bridge at KB Ditch	40.0537	-106.2894
CR-7.4	Colorado River downstream of Troublesome Creek	40.0509	-106.3112
CR-1.7	Colorado River upstream of Blue River	40.0465	-106.3730
WF-5.5	Williams Fork upstream of Williams Fork Reservoir	40.0004	-106.1797
WF-2	Williams Fork downstream of Williams Fork Reservoir	40.0362	-106.2048
WF 0.5	Williams Fork downstream WF Reservoir at Kemp Breeze	40.0561	-106.1825

# **Project Objectives**

The objective of the macroinvertebrate bioassessment is to identify macroinvertebrates to the lowest possible taxonomic level and calculate 13 metrics to assess health of the aquatic macroinvertebrate community at each of the 10 LBD sites. Results obtained by consistent sampling practices and accurate identifications provide valuable information regarding short and long-term changes in aquatic conditions.

# **Scope of Work**

The Contractor and LBD, Inc. will enter into a Professional Services Agreement (Appendix A). The following outlines the Scope of Work that LBD desires to have completed by the Contractor.

# Sample Collection and Macroinvertebrate Analysis

In order to preserve the integrity of the dataset being developed by LBD and to allow integration with other macroinvertebrate data collected within the CEA, the following specific sampling and analytical protocols are required:

- Sampling shall occur preferably during the third or fourth week of September but if needed it can extend
  into early October. This sampling period is consistent with the Colorado Water Quality Control Division's
  (WQCD's) methodology for macroinvertebrate sampling (WQCD, 2017).
- Contractor will collect the samples utilizing protocols approved by the WQCD's Section 303(d) Listing Methodology 2020 Listing Cycle, Appendix D (WQCD, 2019). Three quantifiable Hess samples will be taken from riffle habitat at each of the sites. Each sample will be taken from an area of similar size substrate and velocity (if possible) to avoid any bias from these physical parameters when making comparisons among sites. Each of the three samples are processed separately (without subsampling), then the data are composited.
- Contractor will perform the macroinvertebrate analysis for all samples.
  - Identification and enumeration will be done for the entire sample (i.e. all macroinvertebrates in the sample are counted).
  - Macroinvertebrates will be identified to the lowest practical taxonomic level consistent with the Operational Taxonomic Unit (OTU) developed by the WQCD, which consists of genus or species for mayflies, stoneflies, caddisflies, and many dipterans. Chironomidae will be identified to the genus level.
  - As part of the quality control protocols, all sorted macroinvertebrate samples and approximately 10% of identifications shall be checked by another qualified taxonomist.

#### **Deliverables and Reports**

Final deliverables from the Contractor shall be provided to the LBD Monitoring Committee. The deliverables include:

- An Excel file that includes a species list and count of all identified macroinvertebrates for each of the three samples at each site.
- Multi-Metric Index (MMI) scores as well as the full Ecological Data Application System (EDAS; a Microsoft Access database) output in Excel Spreadsheet format.
- 13 metrics calculated for each site and included in the excel file. With the exception of MMI and TIV, the metrics will be calculated based on the full data set, not the subsampled (300 count) datasets. The metrics are shown in Table 2.
- The contractor shall provide a written summary of the macroinvertebrate sampling results to the LBD Monitoring Committee, as well as opportunity for draft review by the LBD monitoring committee, and explanation of response to comments.
- The contractor will present the results to the LBD Technical Committee in January or March of 2020.

Table 2. Metrics to be calculated by Contractor for each LBD macroinvertebrate sampling site.

	<u> </u>
Multi-Metric Index (MMI)	Colorado WQCD assessment tool. Provides a score from 0-100 which determines general health of aquatic community. Sensitive to many pollutants.
% Chironomidae (Midges)	Percent composition of chironomidae taxa. Chironomidae are tolerant to stress, a high score indicates a stressed environment. High percentage can indicate higher nutrients and sedimentation.
% EPT excluding Baetis	Percent composition of EPT taxa. These are the most sensitive taxa in zones that transition from pristine to anthropogenic. Baetis not included because they have a higher tolerance value and can skew results. Sensitive to many pollutants.
Ephemeroptera Plecoptera Trichoptera (EPT)	Richness of distinguishable taxa in the orders Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies). These are the most sensitive taxa in zones that transition from pristine to anthropogenic. Sensitive to many pollutants. EPT values below 20 can indicate stressors including nutrients.
Hilsenhoff Biotic Index (HBI)	Indicator of nutrient enrichment as well as other stressors. A widely used indicator of organic pollution. High values of the index indicate a predominance of tolerant organisms (i.e., the sensitive species have been lost). Values range from 0-10 and increase as water quality decreases. Auxiliary MMI metric.
Shannon Diversity	Indicator of macroinvertebrate community structure and balance. Does not account for tolerance. Typical values range from 3-4, values less than 1 indicate poor water quality. Auxiliary MMI metric.
Total Taxa Richness	Total number of identifiable taxa, indicator of general community health and stability. Sensitive to metals.
Pteronarcys Californica Density	Pteronarcys Californica abundance, mean number per square meter.
Tolerance Indicator Value (TIV <sub>sed</sub> )	A biological indicator of impacts by excess fine sediments. The TIVsed reflects both the reduction in relative abundance of sediment-sensitive taxa and the increase in relative abundance of sediment-tolerant taxa.
Total Density	Macroinvertebrate abundance mean number per square meter. Useful when paired with other metrics.
% Intolerant Taxa	% composition of intolerant taxa.
% Tolerant Taxa	% composition of tolerant taxa. Based on tolerance values of 7 or greater.
% Hydropsychidae of Trichoptera	% Trichoptera (caddisfly) that is of the family-level Hydropsychidae. Tolerance values range from 2-5. Fine sediment can interfere with feeding. Sensitive to ammonia. May be good fish food.

# Data Collection and Analysis Requirements

The data and analyses will be used to assess whether these segments are impaired under Colorado Department of Public Health and the Environment (CDPHE) rules, so macroinvertebrate sampling, identification and analysis and metric calculation must adhere to Standard Operating Procedures (SOP) and guidance provided in WQCD Policy Statement 10-1 (WQCD, 2017) and:

- Appendices B: Benthic Macroinvertebrate Sampling Standard Operating Procedure
- Appendix C: Standard Operating Procedure for Laboratory Identification and Enumeration
- Appendix D: Methodology for Determining Biological Condition

# **Proposal Submission – Administrative Requirements**

## 1.1 Project Contact Information

Any requests for clarification or additional information regarding submission of this RFP shall be submitted to Ms. Katherine Morris, Grand County Water Quality Specialist (kmorris@co.grand.co.us) by July 8, 2019.

# 1.2 Proposal Submission

Responses shall be in the format noted. LBD reserves the right to disqualify any response submitted incorrectly. Respondents are requested to submit:

• One (1) electronic copy of the Respondent's proposal provided in pdf format.

Proposals are due no later than 10 a.m., local time, July 22, 2019. Late proposals will not be reviewed or scored.

Responses shall be addressed as follows:

Email Subject Line: LBD Macroinvertebrate RFP

Email Address: <u>kikisayre@msn.com</u>

Ms. Kiki Sayre, Learning By Doing Coordinator

#### Submittal Instructions:

- Proposals must be emailed in pdf format.
- 2. Proposals shall contain the signature of a duly authorized officer or agent of the Respondent's company empowered with the right to contractually bind the Respondent.
- 3. Proposals become the property of LBD upon receipt. The content of proposals will be kept confidential until an award is made, after which the content will no longer be kept confidential, except as provided herein.
- 4. Proposals may be withdrawn or modified in writing prior to the proposal submission deadline. Proposals that are modified shall be resubmitted according to the aforementioned instructions prior to the proposal submission deadline.

# 1.3 Proposal Requirements

The proposal must contain all of the following information in the same sequence as presented below. Each proposal should provide a straightforward and concise presentation adequate to satisfy the requirements of this RFP. Proposals must be limited to <u>10 pages</u>, not including cover letter and resumes. Resumes must be limited to <u>2 pages</u> each.

## 1. Cover Letter

 Include a cover letter that introduces your company, summarizes your firm's qualifications, and provides the principal contact information for this RFP including name, address, email, and telephone number.

# 2. Approach to Data Collection and Analysis

- a. Provide a description of your understanding of the Project Goals and Objectives, key assumptions and background, including a well thought out approach to accomplishing the Scope of Work.
- b. Provide a description of your Standard Operating Procedures documenting sampling protocols, laboratory procedures, quality assurance/quality control, etc.

# 3. Budget or Cost Estimate

Provide an itemized budget listed by task, including:

- a. Field Sample Collection (WQCD, 2017; Appendix B, beginning on pdf page 79 and WQCD, 2019; Appendix D).
- b.Identification and Analysis of Macroinvertebrate Data (WQCD, 2017: Appendix C beginning on pdf page 88).
- c. Final Summary Report

# 4. Project Team's Experience on Similar Projects

a. Provide a description of similar work previously completed by the Contractor/Project Team. The Contractor shall be experienced in macroinvertebrate sampling and identification in western Colorado streams or similar Rocky Mountain streams.

# 5. Key Staff Experience

Provide a list of the principal individuals who will work on this project along with resumes of their relevant experience regarding:

- Technical expertise regarding macroinvertebrate sampling, identification and analysis;
- Demonstrated understanding of macroinvertebrate sampling methodology

#### 6. Conflict of Interest Statement

Respondents must disclose work currently performing or performed within the past 3 years for any LBD partner. LBD partners include Grand County, Denver Water, Northern Water, Middle Park Water Conservancy District, River District, Trout Unlimited and Colorado Parks & Wildlife. This information may be considered by LBD when selecting a consultant for the proposed work but does not preclude consultants from doing the work.

## 7. References

All Contractors and sub-Contractors must provide three (3) references and meet the required qualifications that demonstrates experience comparable to the scope and complexity of this project as outlined in this RFP.

## 1.4 Award of Contract

Agreements may be negotiated with Respondents whose proposal is determined to be most responsive to LBD's needs and most advantageous to LBD. Award of an Agreement may be made after proposals are received and without interviews. Therefore, proposals shall be reviewed on the qualifications, technical experience, cost, and proposed financial terms. LBD reserves the right to reject any or all proposals.

Once a proposal is selected, the final scope of work will be agreed upon between the selected firm and LBD and contained in a Professional Services Agreement with LBD, Inc.

## 1.5 Respondent Responsible For Proposal Costs

LBD is not liable for any cost incurred by any Respondent associated with the preparation of a proposal or the negotiation of an Agreement for services prior to the issuance of an Agreement. The Respondent is responsible for costs associated with responding to the RFP including costs related to site visit(s) and estimate preparation(s) for work authorized under the Agreement.

#### 1.6 Binding Proposal

Respondents are advised that proposals shall be binding upon the Respondent for sixty (60) days from the proposal submission deadline. A Respondent may withdraw or modify their proposal any time prior to the proposal submission deadline by a written request, signed in the same manner and by the same person who signed the proposal.

#### 1.7 Notification

Each Respondent submitting a proposal in response to this RFP will be notified in writing as to acceptance or rejection of their proposal. LBD plans to release such emails within three weeks of the proposal submittal date. LBD may delay this action if it is deemed to be in the best interest of LBD.

## 1.8 Right to Reject Proposals and Negotiation

LBD reserves the right to reject any and all proposals and to waive any formality in proposals received, to accept or reject any or all of the items in the proposal, if it is deemed in LBD's best interest. LBD reserves the right to negotiate any and all elements of the proposal, if such action is deemed to be in the best interest of LBD.

#### 1.9 Confidentiality

Respondents acknowledge that LBD's partners may be required to disclose any or all of the documents submitted with a Proposal pursuant to the Colorado Open Records Act, C.R.S 24-72-200.1, et seq. Under C.R.S § 24-72-204(3) (a) (IV), LBD may deny inspection of any confidential commercial or financial information furnished to LBD by an outside party. Therefore, Respondents shall clearly designate any documents submitted with its Proposal that the Respondent deems proprietary or confidential, to aid LBD in determining what should be disclosed in the event of a request for documents under the Colorado Open Records Act. Proposals submitted and terms and conditions specified in each Respondent's response shall remain the property of LBD.

#### References

WQCD (2014) Policy 98-1. <a href="https://www.colorado.gov/pacific/sites/default/files/98-15edimentGuidance2017withAppendices.pdf">https://www.colorado.gov/pacific/sites/default/files/98-15edimentGuidance2017withAppendices.pdf</a>

WQCD (2017) Policy Statement 10-1. <a href="https://www.colorado.gov/pacific/sites/default/files/Policy%2010-1">https://www.colorado.gov/pacific/sites/default/files/Policy%2010-1</a>
<a href="https://www.colorado.gov/pacific/sites/default/files/policy%2010-1">https://ww

WQCD (2019) Section 303(d) Listing Methodology 2020 Listing Cycle. https://drive.google.com/file/d/1CE5GDswZ\_qlwcKRRPTYxLQtOGqPiEONq/view

# **Appendices**

- A. Professional Services Agreement Template
- B. Request for Proposals for Sediment Sampling

# LEARNING BY DOING

# REQUEST FOR PROPOSALS FOR SEDIMENT SAMPLING

Release Date: June 24, 2019 Proposal Deadline: July 22, 2019 at 10:00 a.m. M.T.

Grand County Learning By Doing (LBD) is a collaborative stakeholder group made up of water utilities, state and local government agencies, and nonprofit organizations that are establishing a new paradigm for managing aquatic resources in Grand County. LBD meets regularly to monitor river health and undertake projects to enhance and restore Grand County streams. The partners of LBD are working together in an effort to help solve water resource management problems. LBD, Inc. is a non-profit corporation licensed in the State of Colorado.

# **Request for Proposals**

LBD, Inc. is soliciting proposals from qualified firms to conduct sediment sampling to determine the condition of the aquatic life habitat in the Colorado River from the confluence with the Fraser River to the confluence with the Blue River, and the Fraser River Basin. Collectively, for the purposes of this RFP, this geographic area shall be referred to as LBD's cooperative effort area (CEA). The project will consist of three components: 1) sampling, 2) analysis, and 3) reporting. Any portion of the work may be outsourced, but proposals must address both sampling and analysis of sediments. The objective of the sampling component is to complete sediment sampling that is compatible with the Colorado Water Quality Control Commission (WQCC) Policy 98-1 (WQCC 2014) at 14 sites located within the CEA (Figure 1; Table 1).

In addition to the proposal for the sediment sampling and analysis, the consultant has the option to submit a proposal for macroinvertebrate bioassessment as defined in Appendix B: Request for Proposals for Macroinvertebrate Bioassessment. Proposals for macroinvertebrate bioassessment are not required, however due to the efficiencies in contracting and field work, preference may be given to joint proposals. The RFP for Sediment Sampling is being issued separately by LBD with the same release date and deadline as the RFP for Macroinvertebrate Bioassessment. Because of the Water Quality Control Division (WQCD) listing methodology requirement that paired sediment and macroinvertebrate samples be collected within 2 weeks of one another (WQCD 2019), LBD asks that the sediment sampling contractor coordinate timing of sample collection with the macroinvertebrate bioassessment contractor(s).

The details and scope of the LBD sediment monitoring program are presented herein with instructions for preparing a complete proposal.

# **Monitoring Sites**

The 2019 LBD sediment monitoring program consists of 14 sites: 7 sites in the Colorado River, 6 sites in the Fraser River, and 1 site in Ranch Creek, a tributary to the Fraser River. Figure 1 and Table 1 illustrate these LBD macroinvertebrate sampling site locations within the CEA.

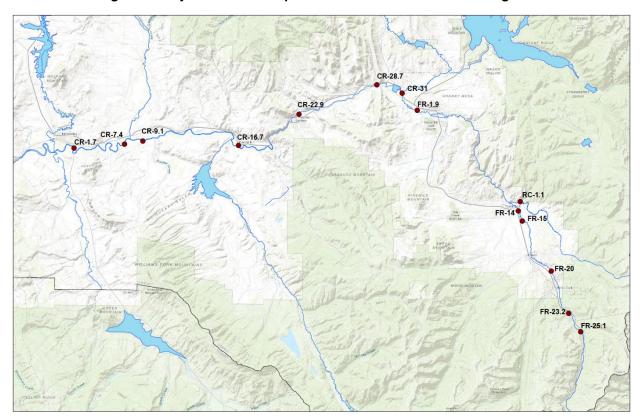


Figure 1 Project Location Map of 2019 LBD Sediment Monitoring Sites

Table 1. 2019 LBD Sediment Monitoring Sites<sup>1</sup>

Station ID	Station Description	Latitude	Longitude
FR-25.1	Fraser River upstream of UP Moffat Tunnel discharge	39.8775	-105.7535
FR-23.2	Fraser River upstream of Winter Park Sanitation	39.8945	-105.7682
FR-20	Fraser River at Rendezvous Bridge	39.9341	-105.7896
FR-15	Fraser River upstream of Fraser Flats restoration	39.9813	-105.8249
FR-14	Fraser River upstream of Tabernash	39.9905	-105.8299
FR-1.9	Fraser River upstream of Granby Sanitation District	40.0845	-105.954
RC-1.1	Ranch Creek downstream of Meadow Creek	39.9991	-105.8275
CR-31	Colorado River upstream of Fraser and Windy Gap	40.1005	-105.9725
CR-28.7	Colorado River downstream of Windy Gap	40.1083	-106.0036
CR-22.9	Colorado River upstream of Hot Sulphur Springs	40.0803	-106.0986
CR-16.7	Colorado River upstream of Williams Fork	40.0503	-106.1725
CR-9.1	Colorado River at CR39 Bridge at KB Ditch	40.0537	-106.2894
CR-7.4	Colorado River downstream of Troublesome Creek	40.0509	-106.3112
CR-1.7	Colorado River upstream of Blue River	40.0465	-106.3730

<sup>&</sup>lt;sup>1</sup> Sediment site locations and number does not exactly match sites listed in the macroinvertebrate RFP because some permit required macroinvertebrate monitoring will be conducted under separate contracts.

# **Project Objectives**

The objective of the sediment sampling is to analyze river bed substrate for aquatic habitat quality, measuring sediment composition including percent fines, percent algae, percent embeddedness, and riffle stability index at each of the 14 LBD sites.

# **Scope of Work**

The Contractor and LBD, Inc. will enter into a Professional Services Agreement (Appendix A). The following outlines the Scope of Work that LBD desires to have completed by the Contractor.

# Sample Collection and Analysis

The contractor shall submit proposals for:

- Pebble counts as described by Wolman, 1954, with the following modifications: 1) Use a zig-zag pattern starting at the downstream end of the unit and proceeding to the upstream end, with the length of each pace based on covering the entire unit. 2) Use a ruler to measure particle diameter. 3) Sample macroinvertebrate riffle habitat.
- Pebble counts per the modified Wolman method described in Appendix B of Policy 98-1 (WQCC 2014), or a comparable method as provided for in section IV.A.3. of Policy 98-1. If the proposed methodology differs from Policy 98-1, please provide an explanation of why it is different and how it will provide the data necessary to do the assessment.
- 3. Percent algae: contractor will provide a description of the proposed methodology.
- 4. Percent embeddedness: contractor will provide a description of the proposed methodology.
- 5. Riffle stability index, conditions permitting, per Kappesser 2002.

LBD is requesting proposals for pebble counts using two different methods; one that would maintain consistency with the current collection method and one consistent with or comparable to Policy 98-1. Upon review of the proposals, one pebble count will be conducted by the contractor using the method that is determined to best meet the needs of LBD.

Sampling shall be timed to occur within two weeks of macroinvertebrate sampling, which targets the third or fourth week of September. The sediment index period is from July 1 to October 1.

# **Deliverables and Reports**

Final deliverables from the Contractor shall be provided to the LBD Monitoring Committee. The deliverables include:

- An Excel file containing the complete data record for 2019 sample collection.
- The contractor shall provide a final written summary of the sediment sampling results to the LBD
  Monitoring Committee, as well as opportunity for draft review by the LBD monitoring committee, and
  explanation of response to comments. Reporting shall include photo documentation of sediment
  conditions at all sample sites.
- The contractor will present the results to the LBD Technical Committee in January or March of 2020.

# Data Collection and Analysis Requirements

The data and analyses may be used to assess whether these segments are impaired under Colorado Department of Public Health and the Environment (CDPHE) guidance, so sediment sampling Standard Operating Procedures (SOP) and guidance provided in WQCC Policy 98-1 (2014) and Appendix B: Pebble Count Standard Operating Procedure, or a comparable method as provided for in section IV.A.3. of policy 98-1, shall be followed.

# **Proposal Submission – Administrative Requirements**

## 1.1 Project Contact Information

Any requests for clarification or additional information regarding submission of this RFP shall be submitted to Ms. Katherine Morris, Grand County Water Quality Specialist (kmorris@co.grand.co.us) by July 8, 2019.

# 1.2 Proposal Submission

Responses shall be in the format noted below. LBD reserves the right to disqualify any response submitted incorrectly. Respondents are requested to submit:

• One (1) electronic copy of the Respondent's proposal provided in pdf format.

Proposals are due no later than 10 a.m., local time, July 22, 2019. Late proposals will not be reviewed or scored.

Responses shall be addressed as follows:

Email Subject Line: LBD Sediment RFP
Email Address: kikisayre@msn.com
Ms. Kiki Sayre, Learning By Doing Coordinator

#### Submittal Instructions:

- 1. Proposals must be emailed in pdf format.
- Proposals shall contain the signature of a duly authorized officer or agent of the Respondent's company empowered with the right to contractually bind the Respondent.
- Proposals become the property of LBD upon receipt. The content of proposals will be kept confidential until an award is made, after which the content will no longer be kept confidential, except as provided herein.
- 4. Proposals may be withdrawn or modified in writing prior to the proposal submission deadline. Proposals that are modified shall be resubmitted according to the aforementioned instructions prior to the proposal submission deadline.

## 1.3 Proposal Requirements

The proposal must contain all of the following information in the same sequence as presented below. Each proposal should provide a straightforward and concise presentation adequate to satisfy the requirements of this RFP. Proposals must be limited to <u>10 pages</u>, not including cover letter and resumes. Resumes must be limited to <u>2 pages</u> each.

#### 1. Cover Letter

a. Include a cover letter that introduces your company, summarizes your firm's qualifications, and provides the principal contact information for this RFP including name, address, email, and telephone number.

# 2. Approach to Data Collection and Analysis

- a. Provide a description of your understanding of the Project Goals and Objectives, key assumptions and background, including a well thought out approach to accomplishing the Scope of Work.
- b. Description of Standard Operating Procedure documenting sampling protocols, laboratory procedures, quality assurance/quality control, etc.

# 3. Budget or Cost Estimate

Provide an itemized budget listed out by task, including:

- a. Pebble count field sample collection per modified Wolman 1954 as specified in the RFP.
- Pebble count field sample collection or alternative method as specified in WQCC 2014;
   Appendix B.
- c. Percent algae.
- d. Percent embeddedness.
- e. Riffle Stability Index.
- f. Final summary report

## 4. Project Team's Experience on Similar Projects

a. Provide thorough descriptions of team experience with sediment sampling and of similar work previously completed by the Contractor/Project Team. The Contractor shall be experienced in sediment sampling in western Colorado streams or similar Rocky Mountain streams.

# 5. Key Staff Experience

Provide a list of the principal individuals who will work on this project along with resumes of their relevant experience regarding:

- a. Technical expertise regarding sediment sampling and analysis;
- b. Demonstrated understanding of sediment sampling methodology.

## 6. Conflict of Interest Statement

Respondents must disclose work currently performing or performed within the past 3 years for any LBD partner. LBD partners include Grand County, Denver Water, Northern Water, Middle Park Water Conservancy District, River District, Trout Unlimited and Colorado Parks & Wildlife. This information may be considered by LBD when selecting a consultant for the proposed work but does not preclude consultants from doing the work.

## 7. References

All Contractors and sub-Contractors must provide three (3) references and meet the required qualifications that demonstrates experience comparable to the scope and complexity of this project as outlined in this RFP.

# 1.4 Award of Contract

Agreements may be negotiated with Respondents whose proposal is determined to be most responsive to LBD's needs and most advantageous to LBD. Award of an Agreement may be made after proposals are received and without interviews. Therefore, proposals shall be reviewed on the qualifications, technical experience, cost, and proposed financial terms. LBD reserves the right to reject any or all proposals.

Once a proposal is selected, the final scope of work will be agreed upon between the selected firm and LBD and contained in a Professional Services Agreement with LBD, Inc.

## 1.5 Respondent Responsible For Proposal Costs

LBD is not liable for any cost incurred by any Respondent associated with the preparation of a proposal or the negotiation of an Agreement for services prior to the issuance of an Agreement. The Respondent is responsible for costs associated with responding to the RFP including costs related to site visit(s) and estimate preparation(s) for work authorized under the Agreement.

## 1.6 Binding Proposal

Respondents are advised that proposals shall be binding upon the Respondent for sixty (60) days from the proposal submission deadline. A Respondent may withdraw or modify their proposal any time prior to the proposal submission deadline by a written request, signed in the same manner and by the same person who signed the proposal.

#### 1.7 Notification

Each Respondent submitting a proposal in response to this RFP will be notified in writing as to acceptance or rejection of their proposal. LBD plans to release such emails within three weeks of the proposal submittal date. LBD may delay this action if it is deemed to be in the best interest of LBD.

## 1.8 Right to Reject Proposals and Negotiation

LBD reserves the right to reject any and all proposals and to waive any formality in proposals received, to accept or reject any or all of the items in the proposal, if it is deemed in LBD's best interest. LBD reserves the right to negotiate any and all elements of the proposal, if such action is deemed to be in the best interest of LBD.

#### 1.9 Confidentiality

Respondents acknowledge that LBD's partners may be required to disclose any or all of the documents submitted with a Proposal pursuant to the Colorado Open Records Act, C.R.S 24-72-200.1, et seq. Under C.R.S § 24-72-204(3) (a) (IV), LBD may deny inspection of any confidential commercial or financial information furnished to LBD by an outside party. Therefore, Respondents shall clearly designate any documents submitted with its Proposal that the Respondent deems proprietary or confidential, to aid LBD in determining what should be disclosed in the event of a request for documents under the Colorado Open Records Act. Proposals submitted and terms and conditions specified in each Respondent's response shall remain the property of LBD.

#### References

Colorado Water Quality Control Commission. 2014. *Guidance for Implementation of Colorado's Narrative Sediment Standard Regulation #31, Section 31.11(1)(a)(i), Policy 98-1.* <a href="https://www.colorado.gov/pacific/sites/default/files/98-1SedimentGuidance2017withAppendices.pdf">https://www.colorado.gov/pacific/sites/default/files/98-1SedimentGuidance2017withAppendices.pdf</a>

Colorado Water Quality Control Commission. 2017. Aquatic Life Use Attainment; Methodology to Determine Use Attainment for Rivers and Streams. Policy Statement 10-1.

https://www.colorado.gov/pacific/sites/default/files/Policy%2010-1 Appendices.pdf

Colorado Water Quality Control Division. 2019. *Section 303(d) Listing Methodology 2020 Listing Cycle*. https://drive.google.com/file/d/1CE5GDswZ\_glwcKRRPTYxLQtOGgPiEONg/view

Kappesser, Gary B. "A RIFFLE STABILITY INDEX TO EVALUATE SEDIMENT LOADING TO STREAMS 1." *JAWRA Journal of the American Water Resources Association* 38.4 (2002): 1069-1081.

Wolman, M. Gordon. 1954. *A Method of Sampling Coarse River-Bed Material*, Transactions, American Geophysical Union, Volume 35, Number 6, p951-956.

# **Appendices**

- A. Professional Services Agreement Template
- B. Request for Proposals for Macroinvertebrate Bioassessment

# **SERVICES CONTRACT**

This Services Contract Regarding Provision of Professional Services (the "Agreement")
dated as of this day of, 2019, is between ("Contractor")
dated as of this day of, 2019, is between ("Contractor") and Learning By Doing, Inc. ("LBD")
Recital
WHEREAS, LBD desires to; and
WHEREAS, Contractor has agreed to
NOW THEREFORE, it is agreed as follows:
Terms and Conditions
1. <u>Scope of Work</u> : Contractor shall perform the work described above and in the attached Exhibit A identified as "" Contractor shall perform the work in a skillful, professional and competent manner. Contractor shall provide qualified staff persons to administer and oversee this contract.
2. Independent Contractor THE CONTRACTOR SHALL PERFORM ITS DUTIES HEREUNDER AS AN INDEPENDENT CONTRACTOR AND NOT AS AN EMPLOYEE. NEITHER THE CONTRACTOR NOR ANY AGENT OR EMPLOYEE OF THE CONTRACTOR SHALL BE OR SHALL BE DEEMED TO BE AN AGENT OR EMPLOYEE OF LBD. CONTRACTOR SHALL PAY WHEN DUE ALL REQUIRED FEDERAL AND STATE INCOME TAXES ON ANY MONIES EARNED PURSUANT TO THIS CONTRACT. CONTRACTOR AND ITS EMPLOYEES ARE NOT ENTITLED TO UNEMPLOYMENT INSURANCE BENEFITS UNLESS THE CONTRACTOR OR A THIRD PARTY PROVIDES SUCH COVERAGE AND THAT LBD DOES NOT PAY FOR OR OTHERWISE PROVIDE SUCH COVERAGE. CONTRACTOR SHALL HAVE NO AUTHORIZATION, EXPRESS OR IMPLIED, TO BIND LBD TO ANY AGREEMENTS, LIABILITY, OR UNDERSTANDING EXCEPT AS EXPRESSLY SET FORTH HEREIN. CONTRACTOR AND ITS EMPLOYEES ARE NOT ENTITLED TO WORKERS' COMPENSATION BENEFITS PAID FOR OR OTHERWISE PROVIDED FOR BY LBD. CONTRACTOR SHALL PROVIDE AND KEEP IN FORCE WORKER'S COMPENSATION (AND SHOW PROOF OF SUCH INSURANCE) AND UNEMPLOYMENT COMPENSATION INSURANCE IN THE AMOUNTS REQUIRED BY LAW, AND SHALL BE SOLELY RESPONSIBLE FOR THE ACTS OF THE CONTRACTOR, ITS EMPLOYEES AND AGENTS.
3. <u>Compensation and Payment:</u> Consultant shall complete the described Work at the labor and expense charge rates shown in Exhibit B for total compensation, including all expense reimbursement, not to exceed the sum of Dollars (\$

a.	Contractor may invoice LBD monthly for completed portions of the Work. Each
	invoice must reference the contract number assigned to this Agreement ().
	LBD shall make payment on each such invoice to contractor within thirty (30)
	days from receipt of such invoice.

- (1) Each invoice shall describe the work performed as follows: individual(s) performing the work; dates and general description of work performed; and hours worked.
- (2) Each invoice shall itemize expense charges incurred by contractor and invoiced to LBD.
- b. Contractor shall accompany its invoice for final payment with a letter referencing the contract number assigned to this Agreement (\_\_\_\_) certifying that it has no further claim for compensation or reimbursement due it for the Work pursuant to this Agreement.
- c. Contractor acknowledges that compensation for its services under this Contract relies on grants awarded by . . . under the terms of Contract . . . , dated . . . attached herein as Exhibit C (the "\_\_\_\_ Contract"), and agrees to cooperate with LBD in ensuring that the conditions of the \_\_\_ Contract are met including, but not limited to, providing all information necessary to secure grant disbursements for Contractor's services and providing information needed for reporting purposes.

## 4. Time for Completion of Contract/Duration of Contract:

Unless specifically authorized	by	LBD, is	n	writing,	work	is	to	begin	on	or	about
and shall be completed	on										

5. <u>Beneficiary</u>: Except as herein specifically provided otherwise, this contract shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

It is expressly understood and agreed that the enforcement of the terms and conditions of this contract and all rights of action relating to such enforcement, shall be strictly reserved to LBD and the named contractor. Nothing contained in this agreement shall give or allow any claim or right of action whatsoever by any other third person. It is the express intention of LBD and the contractor that any such person or entity, other than LBD or the contractor, receiving services or benefits under this agreement shall be deemed an incidental beneficiary only.

## 6. Insurance - Contractor:

- a. During the term of this contract, and any extension(s) hereof, contractor agrees that it will keep in force an insurance policy or policies, issued by a company authorized to do business in Colorado, in the kinds and minimum amounts specified below unless specifically waived herein. In the event of cancellation of any such coverage, the contractor shall immediately notify LBD of such cancellation,
  - (1) Standard Worker's Compensation and Employer's Liability as required by State Statute, including occupational disease; covering all employees on or off the work site, acting within the course and scope of their employment.
  - (2) General, Personal Injury, Professional, Automobile Liability (including bodily injury, personal injury and property damage) with minimum coverage of:
    - a. Occurrence basis policy: combined single limit of \$1,100,000 or Claims-Made policy: combined single limit of \$1,100,000; plus an endorsement, certificate, or other evidence that extends coverage two years beyond the performance period of the contract.
    - b. Annual Aggregate Limit policy: Not less than \$1,100,000 plus agreement that the contractor will purchase additional insurance to replenish the limit to \$1,100,000 if claims reduce the annual aggregate below \$1,100,000.
    - c. LBD shall be named as an additional insured on all liability policies.
    - d. The insurance shall include provisions preventing cancellation without thirty (30) calendar days prior to written notice to LBD by certified mail.
    - e. Upon execution of this contract, the contractor shall provide to LBD additional insured endorsements and certificates of the required insurance coverage.
    - f. The contractor shall provide such other insurance as may be required by law, or in a specific solicitation.
    - g. If the contractor is a "public entity" within the meaning of the Colorado Governmental Immunity Act, 24-10-101, et sec., C.R.S. as amended ("Act"); the contractor shall maintain such insurance, by commercial policy or self-insurance, as is necessary to meet the contractor's liabilities under the Act. Proof of such insurance shall be provided upon request by LBD.

7. Contractor Representations - Licenses/Approvals/Insurance: The contractor certifies that, at the time of entering into this contract, it currently has in effect all necessary licenses, certifications, approvals, insurance, etc. required to properly provide the services and/or supplies covered by this contract. Additionally, all employees of the contractor performing services under this contract shall hold the required license or certification, if any, to perform their responsibilities. Any revocation, withdrawal or nonrenewal of necessary license, certification, approval, insurance, etc. required for the contractor to properly perform this contract, shall be grounds for termination of this contract by LBD.

The contractor further certifies that, if a foreign corporation, a limited liability company, a limited liability partnership or a limited liability limited partnership, it currently has a Certificate of Good Standing of Certificate of Existence to do business in Colorado. Proof of such certification shall be provided upon request by LBD.

- 8. Records Maintenance: The contractor shall maintain a complete file of all records, documents, communications, and other materials which pertain to the operation of the program/project or the delivery of services under this contract. Such files shall be sufficient to properly reflect all direct and indirect costs of labor, materials, equipment, supplies and services, and other costs of whatever nature for which a contract payment was made. These records shall be maintained according to generally accepted accounting principles and shall be easily separable from other contractor records.
- 9. Records Retention and Availability: All such records, documents, communications, and other materials shall be the property of LBD unless otherwise specified herein and shall be maintained by the contractor, for a period of three (3) years from the date of final payment or submission of the final federal expenditure report under this contract, unless LBD requests that the records be retained for a longer period, or until an audit has been completed with the following qualification. If an audit by or on behalf of LBD has begun but is not completed at the end of the three (3) year period, or if audit findings have not been resolved after a three (3) year period, the materials shall be retained until the resolution of the audit findings.
- 10. <u>Performance Monitoring</u>: The contractor shall permit LBD and any other governmental agency authorized by law, or their authorized designee, to monitor all activities conducted by the contractor pursuant to the terms of this contract. As the monitoring agency may in its sole discretion deem necessary or appropriate, such monitoring may consist of internal evaluation procedures, reexamination of program data, special analysis, on-site verification, formal audit examinations, or any other reasonable procedures. All such monitoring shall be performed in a manner that will not unduly interfere with contract work.

#### 11. Audits

a. <u>General</u>: The contractor authorizes LBD or its representatives to perform audits and/or inspections of its records at any reasonable time during the term of this contract and for a period of three (3) years, (unless LBD determines a longer

timeframe is required) following the date of final payment under this contract, to assure compliance with its terms and/or to evaluate the contractor's performance.

Any amounts that have been paid by LBD which are found to be improper in accordance with other terms of this contract shall be immediately returned to LBD or may be received in accordance with other remedies.

- b. <u>Single Audit Clause</u>: All state and local governments and non-profit organizations receiving more than \$500,000 from all funding sources, that are defined as federal financial assistance for single audit purposes, shall comply with the audit requirements of OMB Circular A-128 (Audits of State and Local Governments) or A-133 (Audits of Institutions of Higher Education and Other Non-profit Organizations), which ever applies.
- 12. <u>Conflict of Interest</u>: During the term of this contract, the contractor shall not engage in any business or personal activities or practices or maintain any relationships which conflict in any way with the contractor fully performing his/her obligations under this contract.

In the event that the contractor is uncertain whether a conflict of interest may reasonably exist, the contractor shall submit to LBD a full disclosure statement setting forth the relevant details for LBD's consideration and direction. Failure to promptly submit a disclosure statement or to follow LBD's direction in regard to the apparent conflict shall be grounds for termination of the contract.

Neither Contractor nor any of its employees shall, at any time during the term of this Agreement, do work for, nor shall they have any financial interest or other relationship with any entity or project which would constitute a conflict of interest or influence or otherwise jeopardize the professional judgment of Contractor in connection with the Project.

13. <u>Conformance with Law</u>: The contractor shall at all times during the term of this contract strictly adhere to all applicable federal and state laws and implementing regulations as they currently exist and may hereafter be amended. The contractor shall also require compliance with these statutes and regulations in subcontract agreements, if any, permitted under this contract.

This contractor also shall comply with any and all laws and regulations prohibiting discrimination in the specific programs(s) which is/are the subject of this contract. In consideration of and for the purpose of obtaining any and all federal and/or state financial assistance, the contractor makes the following assurances and certification, upon which LBD relies.

a. The contractor will not discriminate against any person on the basis of race, color, national origin, age, sex, religion and handicap, including Acquired Immune Deficiency Syndrome (AIDS) or AIDS related conditions, in performance of work under this contract.

- b. At all times during the performance of this contract, no qualified individual with a disability shall, by reason of such disability, be excluded from participation in, or denied benefits of the service, programs, or activities performed by the contractor, or be subjected to any discrimination by the contractor.
- c. The contractor shall take all necessary affirmative steps, as required by 45 CFR 92.36(e), Colorado Executive Orders D0055 87 and D0005 94 and State Procurement Rules, to assure that small and minority businesses and women's business enterprises are used, when possible, as sources of supplies, equipment, construction, and services purchased under this contract.
- 14. <u>Assignment/Delegations/Subcontracting</u>: Except as herein specifically provided, the duties and obligations of the contractor arising hereunder cannot be assigned, delegated nor subcontracted except with the express prior written consent of LBD. The subcontracts permitted by LBD shall be subject to the requirements of this contract, and the contractor is responsible for all subcontracting arrangements and the delivery of services as set forth in this contract. The contractor shall be responsible for the performance of any subcontractor and failure of the subcontractor to provide services as set forth in this contract. The contractor warrants and agrees that any subcontract resulting from its performance under the terms and conditions of this contract shall include a provision that the said subcontractor shall abide by the terms and conditions hereof, as well as all other applicable laws, rules and regulations pertinent hereto that have been or may hereafter be established. Also, the contractor warrants and agrees that all subcontracts shall include a provision that the subcontractor shall indemnify and hold harmless LBD.
- 15. <u>Remedies</u>: LBD or its designee may exercise the following remedial actions, in addition to all other remedial actions authorized by law, should it find the contractor substantially failed to satisfy the scope of work found in this contract. Substantial failure to satisfy the scope of work shall be defined to mean incorrect or improper activities or inaction by the contractor. These remedial actions are as follows:
  - a. Withhold payment to the contractor until the necessary services or corrections in performance are satisfactorily completed;
  - b. Request the removal from work on the contract of employee(s) and/or agent(s) of the contractor whom LBD or designee justifies as being incompetent, careless, insubordinate, unsuitable, or otherwise unacceptable, or whose continued employment on the contract s/he deems to be contrary to the public interest or not in the best interest of LBD.
  - c. Deny payment or recover reimbursement for those services or deliverables which have not been performed and which, due to circumstances caused by the contractor, cannot be performed or if performed would be of no value to LBD. Denial of the amount of payment shall be reasonably related to the amount of work or deliverables lost to LBD.

d. Incorrect payments to the contractor due to omission, error, fraud, and/or defalcation shall be recovered from the contractor by deduction from subsequent payments under this contract between LBD and the contractor, or by LBD as a debt due to LBD or otherwise as provided by law.

## 16. Termination:

- a. <u>Termination for Default</u>: LBD may terminate the contract for cause without compensation for termination costs. If LBD terminates the contract for cause, it will first give ten (10) days prior written notice to the contractor, stating the reasons for cancellation, procedures to correct problems, if any, and the date the contract will be terminated in the event problems have not been corrected.
  - (1) In the event this contract is terminated for cause, LBD will only reimburse the contractor for acceptable work or deliverables received up to the date of termination.
  - (2) In the event this contract is terminated for cause, final payment to the contractor may be withheld at the discretion of LBD until completion of final audit.
- b. <u>Termination for Convenience:</u> LBD shall have the right to terminate this contract by giving the contractor at least thirty (30) days prior written notice. If notice is so given, this contract shall terminate on the expiration of the specified time period, and the liability of the parties hereunder for further performance of the terms of this contract shall thereupon cease, but the parties shall not be released from the duty to perform their obligations up to the date of termination.
- c. <u>Immediate Termination</u>: This contract is subject to immediate termination by LBD in the event that LBD determines that the health, safety, or welfare of persons receiving services may be in jeopardy. Additionally, LBD may immediately terminate this contract upon verifying that the contractor has engaged in or is about to participate in fraudulent acts.
- 17. <u>Severability:</u> To the extent that this contract may be executed and performance of the obligations of the parties may be accomplished within the intent of the contract, the terms of this contract are severable, and should any term or provision hereof be declared invalid or become inoperative for any reason, such invalidity or failure shall not affect the validity of any other term or provision hereof. The waiver of any breach of a term hereof shall not be construed as a waiver of any other term, or the same term upon subsequent breach.
- 18. <u>Integration of Understandings:</u> This contract is intended as the complete integration of all understandings between the parties. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or effect whatsoever, unless embodied herein in

writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a written contract executed and approved by LBD.

# 19. Exhibits - Interpretation

- a. Unless otherwise stated, all exhibits referenced herein are attached hereto and incorporated herein and made a part of this contract.
- b. The terms of this contract shall control over any conflicting terms in any of its attached exhibits.
- 20. <u>Confidentiality</u>: Contractor acknowledges that it may receive confidential information from LBD in connection with the Project or, as part of the Project, develop such information. Contractor shall take all precautions necessary to maintain and protect the confidentiality of any such information and to ensure that it shall be used only for the purposes of the Project.
- 21. Ownership of Work: Subject to LBD's obligation to compensate Contractor, all work, reports, designs, drawings, renderings and other work product produced by Contractor in connection with the Project shall be the personal property of LBD and Contractor shall not use any part thereof for purposes other than the Project without the written consent of LBD.
- 22. <u>Indemnification</u>: Contractor shall indemnify LBD and hold and defend it and its officials, officers and employees harmless from all costs, claims and expenses arising from claims made by any person in connection with the acts or omissions of, or representations by, the Contractor. This indemnification shall not apply to claims by third parties against LBD to the extent that LBD is liable to such third party for such claim without regard to the involvement of the Contractor. It shall be a condition to liability under this paragraph that LBD promptly provide to the Contractor a copy of any summons, complaint or other notice of claim with respect to any claim for which LBD may seek indemnification or defense hereunder. Within 10 days following the giving of such notice of claim by LBD, the Contractor shall acknowledge receipt of such notice in writing to LBD and, in such notice, accept the defense and obligation to indemnify LBD hereunder. Following such acknowledgment, the Contractor shall take all actions reasonably necessary to protect LBD from such claim and LBD shall cooperate in such defense. In the event that the Contractor fails or refuses to give such acknowledgment of receipt and acceptance to LBD within the 10 day period specified, LBD may, but shall not be obligated to, assume its own defense and thereafter recover all costs of such defense from the Contractor.
- 23. <u>Notices:</u> Any notice required under this Agreement may be personally delivered or mailed by United States mail, first class postage prepaid to the party to be served at the following addresses:

Contractor:

LBD: Learning By Doing, Inc. PO Box 264

Hot Sulphur Springs, CO 80451

Notices personally served shall be deemed served on the date of delivery. Notice mailed shall be deemed served the next business day following the date of mailing if mailed in the State of Colorado, otherwise in the date which is two business days following the date of mailing.

- 24. <u>Entire Agreement</u>: This Agreement constitutes the entire agreement between the parties concerning the work and may not be amended except by a written document executed by both parties hereto.
- 25. <u>Counterparts</u>: This Contract may be executed in any number of counterparts, each of which shall be deemed an original, and which together shall constitute a single instrument.
- 26. <u>Choice of Laws and Venue</u>: This Contract shall be governed by and construed in accordance with the internal laws of the State of Colorado without reference to choice of law rules. The parties agree that venue in any action to enforce or interpret this Agreement shall be only in the District Court in and for the County of Grand, State of Colorado.

CONTRACTOR:	•	
By:		
Print Name/Title:		
Subscribed and sworn before me	this day of	, 2019 in the County of
, State of	Colorado by	(name) as
(title) of		(Contractor name),
being duly authorized to bind Contractor.		
Notary Public Witness My Hand and Official Seal: My Commission Expires:	Date	
LEARNING BY DOING, INC.:		
By:		
Acknowledged before me this	day of	, 2019 in the County of Grand, State
of Colorado by	as (title) of Learning	By Doing, Inc.

Notary Public	Date
Witness My Hand and Official Seal:	
My Commission Expires:	
ATTEST	
By:	