

## Exhibit A

### Scope of Services and Anticipated Budget for Truckee Meadows Regional Storm Water Quality Monitoring City of Reno, Nevada, Fiscal Year 2024 (July 2023-June 2024)

**DRAFT**

April 26, 2023

Balance Hydrologics

Balance Hydrologics (Balance) continues implementing the Truckee Meadows Stormwater Quality Monitoring Program. The fiscal year (FY)2023 program is currently being carried out per the Project Sampling and Analysis Plan (SAP; Balance, 2021) and scope of work outlined in our current contract, dated July 20, 2022. This scope of services and anticipated budget is proposed for the new fiscal year, FY2024, beginning July 1, 2023.

A timeline of activities/tasks related to the upcoming fiscal year, calendar year, and water year is shown in **Figure 1**.

Task Description	2023												2024					
	Water Year 2023						Water Year 2024						Fiscal Year 2025					
	FY2022		Fiscal Year 2024												Fiscal Year 2025			
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
<b>New Contract (Requested by July 1, 2023)</b>																		
<b>Task 1. Data Analysis and Annual Report (FY2023)</b>			[Task Bar]															
<b>Task 2. Stormwater Sampling (FY2024)</b>			[Task Bar]															
<b>Task 3. Tributary Ambient Sampling (FY2024)</b>				[Task Bar]					[Task Bar]									
<b>Task 4. Streamflow Gaging</b>			[Task Bar]															
<b>Task 5. Committee Meetings and Presentations</b>			★		★		★		★		★		★					
<b>Task 6. Project Management and Correspondence</b>			[Task Bar]															

**Figure 1. Timeline of Tasks, Truckee Meadows Stormwater Monitoring Program, FY2024**

The remainder of this memo describes a scope of work for FY2024.

### **Task 1: Update SAP, Data Analysis, and FY2023 Annual Report**

Balance will update the SAP with any changes in the monitoring program for FY2024 (SAP was last updated in 2021). In addition, Balance will complete the analysis of field measurements, analytical results, and observations conducted during the FY2023 monitoring period (July 1, 2022 – June 30, 2023). Data included in the report will be QA/QC'd by a Balance senior staff member or professional (as per the 2021 SAP) and included in a draft annual report. The annual report will follow the general format and detail similar to previous reports. It will be submitted for review by the Stormwater Committee. Following that review, Balance will address all comments received, revise the report if necessary, and issue a final FY2023 Annual Monitoring Report.

### **Deliverables:**

- Updated SAP: August 2023 (present at August Committee Meeting)
- FY2023 draft report: October 15, 2023 (approximate)
- FY2023 final report: January 15, 2024 (approximate)

## **Task 2: FY2024 Stormwater Sampling (Outfalls and Tributaries)**

### Pre-event Preparation

Laboratory bottles will be ordered, labeled, and organized in preparation for select storm events under this task. Automated samplers located at four urban outfalls and four tributaries will be programmed before selected storm event for sample collection using a flow-weighted method, if feasible.

### Storm Event Sampling

Per the current SAP, up to two stormwater samples will be collected at all stations during two separate storm events, with an additional sample collected from a third storm at the four urban outfalls. At sites instrumented with automated samplers, efforts will be taken to collect up to 24 individual samples to represent different components of the storm hydrograph. These samples will then be composited into four samples that are representative of various features of the hydrograph: (a) first flush, (b) rising limb, (c) peak flow, and (d) falling limb and submitted to the laboratory for analysis. In addition, a grab sample will be collected at all other monitoring stations targeting the first flush or rising limb of the storm hydrograph, if feasible.

Time and budget are allocated under this task for the following items:

- Weather analysis and sampling team coordination
- Storm documentation and weather summary
- Coordination with Western Environmental Testing Laboratory (WETLAB)
- Water quality meter calibrations and repair
- Observer log updates and field notes duplication in preparation for quality assurance and quality control review
- Analytical analysis spreadsheet updates

We will respond to storms that occur within the monitoring year with the following exceptions: (a) Thanksgiving Day, (b) Christmas Eve, (c) Christmas Day, (d) between midnight and 5:00 am, and (e) during times when field staff safety may be compromised.

## Equipment Maintenance

In-field instruments require periodic maintenance during the year. Therefore, time and budget are allocated for routine station visits for ISCO testing, cleaning, battery and desiccant replacement, and repairs due to flooding, vandalism, or age.

### **Deliverables:**

- Copies of analytical reports when received and by request.

## **Task 3: FY2024 Characterization of Ambient Water Quality in Tributaries (Irrigation season and Non-irrigation season Sampling)**

Balance will collect samples representing ambient baseflow conditions at all designated tributary sampling stations twice annually: once during the irrigation season (August or September) and once during the non-irrigation season (February or March). Ambient samples at (1) North Truckee Drain at Big Fish Drive, (2) Steamboat Creek at Clean Water Way, (3) Boynton Slough at Steamboat Creek, and (4) Yori Drain at Steamboat Creek, will be collected using automated samplers programmed for hourly sampling and composited into four subsamples from 6-hour periods. All other tributary locations are grab samples.

### **Deliverables:**

- Copies of analytical reports when received and by request.

## **Task 4: Continuous Streamflow Gaging (5 gages)**

Balance will maintain four stream gaging stations for the SWPCC committee and assist with relocating a fifth station partially operated by NDOT. Stations located at:

- (1) South Evans Creek (EC@KL),
- (2) Thomas Creek (TC@SMP),
- (3) Yori Drain (YD@SBC), and
- (4) Boynton Slough (BS@SBC)
- (5) We continue to work with City of Sparks to relocate the Alum Creek at Truckee River to North Truckee Drain upstream of the USGS gage at Spanish Springs. Once relocation is complete we will operate the gage.

Balance will develop a continuous (15-minute) streamflow record for each of the 5 gages. Streamflow records will be used in unison with stormwater and baseflow constituent concentrations to compute instantaneous loads.

### **Deliverable:**

- Daily streamflow hydrographs for each gaging station in the annual report.

## **Task 5: Committee Meetings and Presentations**

Balance staff will attend up to six Stormwater Committee meetings to present results of individual storm sampling, provide progress reports, and present the annual report. Additional meetings can be attended upon separate request and authorization.

### **Deliverables:**

- Copies of presentations will be provided to the City of Reno Stormwater Committee Project Manager in advance of the meeting.

## **Task 6: Project Management and Correspondence**

Balance will administer this contract, budget, and billings and coordinate with the City of Reno project manager regarding project management and direction. In addition, we will provide monthly progress reports with information about work conducted, budget spent and remaining budget, and details regarding any deviations from this scope (if they occur).

### **Deliverables:**

- Monthly Progress Reports with invoices

## **Assumptions and Contingency**

We recognize that storm and water quality sampling in a semi-arid region includes the chance of missing storms. We will continue to do our best to meet the program's objectives, but experience dictates that at least one sampling deployment may result in incomplete results. This scope assumes that storms to be sampled will be easily identified, targeted, and successfully sampled at all targeted locations. If forecasts are incorrect or 'dry runs' happen, additional work will be required. Similar to our previous scope, we have provided an 10 percent 'contingency' budget to be used only with authorization from the City of Reno project manager if additional runs are warranted. Contingency may also be used for other purposes if requested by the project manager.

## **Requests of the City of Reno**

To facilitate the implementation of the FY2024 monitoring program, we request the following:

- Assistance in coordinating with the City of Sparks for:
  - 'Clean out' of Mary Wahl Drain at sampling location before a sampling event; anticipated 2-3 times over the fiscal year;
  - Access to North Truckee Drain at Sage Thrasher Court

- Invasive vegetation removal in North Truckee Drain at Sage Thrasher Court
- Assistance in facilitating report review among members of the committee.

## **Anticipated Costs**

Our anticipated staff assignments and labor costs for this scope of work are shown in Table 1, and analytical costs, equipment rental fees, and cost of materials/shipping are shown in Tables 2 and 3. We will bill on a time-and-expenses basis against this allocation, guided by the estimated assignments and costs shown in Tables 1, 2, and 3.

## **Anticipated Schedule**

We understand this scope of work and budget require review and approval by both the Stormwater Committee (anticipated review April 2023) and City Council (anticipated review in May or June 2023). Upon those approvals and your authorization to proceed, we will continue work on this project beginning the first day of the new fiscal year, July 1, 2023.

Table 1. Anticipated Staff Hours by Task  
**213136 City of Reno; Truckee Meadows Stormwater Monitoring Program FY24**

Task Number and Description	Sr. Principal	Principal II	Principal I	Senior Professional	Project Professional	Sr. Staff Professional	Staff Professional	Assistant Professional	Junior Professional	GIS/CADD Senior Analyst	GIS/CADD Analyst	GIS/CADD Assistant Analyst	Sr. Proj Admin	Sr. Report Specialist	Report Specialist	Hydrologic Tech	Labor Costs For Task
	Hourly Rate	\$252	\$237	\$227	\$201	\$194	\$184	\$158	\$145	\$135	\$150	\$135	\$120	\$135	\$105	\$95	
<b>Task 1. Data Analysis and FY2023 Annual Report</b>																	
Review and Update the 2021 SAP		2		8			8								3		\$3,631
Data analysis and QA/QC				30		30	30										\$16,290
Draft report (October 2023)		8		30		16	30						4		6		\$16,720
Final report (January 2024) Presentation		8		12			12						4		6		\$7,314
				10			12										\$3,906
<b>Task 2. FY2024 Stormwater Sampling (outfalls and tributaries)</b>																	
ISCO maintenance and repairs				20			32										\$9,076
Pre-event preparations (ISCOs)						20	40										\$10,000
Storm event sampling and lab coordination (outfalls)				20		20	50										\$15,600
Storm event sampling and lab coordination (tributaries)				20		20	50										\$15,600
<b>Task 3. FY2024 Tributary Ambient Sampling</b>																	
Irrigation season--Non-storm Sampling (August-September)				1		8	34										\$7,045
Non-irrigation season--Non-storm Sampling(February-March)				1		8	34										\$7,045
<b>Task 4. FY2024 Streamflow gaging (5 gages)</b>																	
Gage maintenance and data management				24		60	80										\$28,504
<b>Task 5. Committee Meetings and Presentations</b>																	
Assume 6 committee meetings				12			28										\$6,836
Presentation Preparation							24										\$3,792
<b>Task 6. Project Management and Correspondence</b>																	
Project management tasks and correspondence				28			16						4		4		\$9,076

**Table 2. Estimated Costs**  
**213136 City of Reno; Truckee Meadows Stormwater Monitoring Program FY24**

<b>Professional Fees</b>	<b>Rate</b>	<b>Hours</b>	<b>Allocation</b>
Sr. Principal	\$252	0	\$0
Principal	\$237	18	\$4,266
Associate Principal	\$227	0	\$0
Senior Professional	\$201	216	\$43,416
Project Professional	\$194	0	\$0
Senior Staff Professional	\$184	182	\$33,488
Staff Professional	\$158	480	\$75,840
Assistant Professional	\$145	0	\$0
Junior Professional	\$135	0	\$0
GIS/CADD Senior Analyst	\$150	0	\$0
GIS/CADD Analyst	\$135	0	\$0
GIS/CADD Assistant Analyst	\$120	0	\$0
Senior Project Administrator	\$135	12	\$1,620
Senior Report Specialist	\$105	0	\$0
Report Specialist	\$95	19	\$1,805
Hydrologic Technician	\$95	0	\$0
<b>Labor Subtotal (Table 1)</b>			<b>\$160,435</b>
<b>Expenses</b>			
<b>Direct Expenses</b>			
Mileage	<b>2400</b> miles @	\$0.72	\$1,728
Mileage, 4-Wheel Drive*	miles @	\$0.75	\$0
Vehicle Rental			\$0
Equipment Costs (see Table 3)			\$1,200
Per Diems	@		\$0
<b>Reimbursable Costs</b>			
Other Travel, Subsistence	trips @		\$0
Express Mail, Deliveries			\$0
Maps and Aerial Photos			\$0
Outside Copying, Blueprint			\$0
Outside Consultants			\$0
<b>Analytical Laboratory Fees</b>			<b>\$31,000</b>
Materials and Supplies			\$850
Permits, Licenses or Agency Inspection fees	<i>client responsibility</i>		\$0
Printing <sup>+</sup>			\$0
Other			\$0
<b>Expenses Subtotal</b>			<b>\$34,778.00</b>
<b>ESTIMATED TOTAL</b>			<b>\$195,213</b>
<b>Contingency</b>			<b>\$19,521</b>
<b>TOTAL w/ CONTINGENCY</b>			<b>\$214,734</b>
<i>Notes</i>			

\* 4WD rates apply only if required by site conditions. See Balance policy re 4WD.

+Plotting costs vary according to complexity of design

Project-related expenses will be bill at cost plus 10%; including work by outside consultants and analytical or testing laboratories.

**Table 3. Equipment Rental Costs**  
**213136 City of Reno; Truckee Meadows Stormwater Monitoring Program FY24**

	Cost/ day	# of days	Cost/ week	# of weeks	Cost/ month	# of months	Cost/ season	# of seasons	Cost/ year	# of years	Cost
<b>Field Equipment</b>											
Current meter and flow-measuring equipment	\$45	6	\$100		\$150		\$300		\$350		\$270
Acoustic Doppler Current Profiler	\$750										
SCT or conductivity meter	\$30	6	\$50		\$75		\$200		\$250		\$180
Dissolved oxygen meter	\$35	6	\$60		\$100		\$250		\$300		\$210
Turbidity meter/probe	\$35	6	\$60		\$100		\$250		\$300		\$210
pH meter	\$15	6	\$30		\$75		\$150		\$200		\$90
Electrical water-level indicator ("sounder")	\$25		\$50		\$75		\$150		\$200		
<b>Water-level recorders</b>											
Datalogger with two transducers	\$200		\$400		\$800		\$1,600		\$2,000		
Additional transducers	\$75		\$100		\$200		\$300		\$400		
Specific conductance + temperature sensor option	\$60		\$75		\$150		\$200		\$250		
Standard 6 in. Rain gage for use with water-level datalogger	\$20		\$35		\$50		\$150		\$200		
Solar power option											
Cell modem + realtime data access							\$250 + \$30/mo		\$350 + \$30/mo		
Self-contained datalogger (pressure and temp.)	\$25		\$50		\$100		\$250		\$350		
Self-contained datalogger (pressure + SCT)	\$50		\$100		\$200		\$550		\$700		
Barometric pressure logger ( to use with self-contained log.)	\$25		\$50		\$100		\$250		\$350		
Self-contained datalogging rain gage	\$25		\$50		\$100		\$250		\$350		
<i>Othersensors, specialty enclosures, etc. available upon request</i>											
<b>Samplers</b>											
Hand-held suspended-sediment sampler (DH-48; DH59)	\$40	6	\$80		\$120		\$250				\$240
High-flow suspended-sediment sampler (D49, D74)	\$100		\$200		\$240		\$400				
Hand-held bedload sampler (Helley-Smith)	\$40		\$80		\$120		\$250				
High-flow bedload sampler (Helley-Smith)	\$100		\$200		\$240		\$400				
Automated water quality sampler											
Hand-auger soil-sampling array (mud and multiple barrels)	\$80		\$100		\$120						
Soft-sediment core sampler	\$45		\$150		\$150						
Water quality sampler (DH-81)	\$40		\$120		\$120		\$250				
Field filtering equipment	\$18		\$60		\$60		\$80				
<b>Surveying equipment</b>											
Level-transit or automatic level, tripod, rod	\$70		\$210								
Total station	\$100		\$280								
Drone or UAV photogrammetry	\$250										
Differential GPS	at cost		at cost								
T-LIDAR	at cost		at cost								
Hand level	\$20		\$60		\$120						
<b>Miscellaneous, less commonly used items</b>											
Cutthroat portable flume	\$50		\$80		\$100		\$200				
Side by side vehicle (ATV)	\$200										
Drone Rental	\$250										
Piezometers											
Will vary by site											

**Other Equipment**

**Total Rental Charges      \$1,200**

**Notes:**

Rates for other equipment or for other rental periods are available (see Balance form 305).  
Discounts are sometimes given on projects with extensive instrumentation or for multi-year projects.  
Rates may vary for certain projects depending upon field conditions, precision requirements, and anticipated exposure to weather.