Position Description Form (PDF)

College: Sir Sandford Fleming

Incumbent's Name: S00549

Position Title: CAWT Research Technician Payband: G

Position Code/Number (if applicable): TBD

Scheduled No. of Hours____35_____

Appointment Type: ____X_____12 months _____less than 12 months

Supervisor's Name and Title: Director, CAWT

Completed by: Executive Director, Applied Research and Innovation
Effective Date: November 24, 2026

Signatures:

Incumbent: Date:
(Indicates the incumbent has read and understood the PDF)

Supervisor: Date:

Instructions for Completing the PDF

1. Read the form carefully before completing any of the sections.

2. Answer each section as completely as you can based on the typical activities or requirements of the position and not on exceptional or rare requirements.

3. If you have any questions, refer to the document entitled "A Guide on How to Write Support Staff Position Description Forms" or contact your Human Resources representation for clarification.

4. Ensure the PDF is legible.

5. Responses should be **straightforward and concise using simple factual statements.**

Position Summary

Provide a concise description of the overall purpose of the position.

The CAWT Research Technician will support the implementation and execution of applied research projects at the Centre for Advancement of Water and Wastewater Technologies (CAWT) at the Frost Campus and remote research facilities, with a primary focus on field operations. The incumbent will install, operate, maintain, troubleshoot and decommission research technologies, experimental systems and associated equipment under the guidance and direction of the CAWT Director, Research Site Coordinator and Principal Researcher(s).

The incumbent will carry out daily project operations, including monitoring system performance, conducting field measurements, collecting samples and maintaining detailed records of project activities and operational conditions. They will follow established project outlines, test plans, operating procedures and health and safety protocols. They will assist with technology installations and modifications and provide onsite support and oversight when external contractors and vendors are working at CAWT facilities.

The incumbent will perform routine accredited and non-accredited laboratory analyses as required to support research projects, in accordance with established methods and procedures. They will maintain accurate records and follow established quality assurance and quality control procedures to ensure the accuracy, repeatability and integrity of research data.

The incumbent will provide training to staff and students on project operations, sample collection, equipment operation and routine laboratory methods. They will provide guidance and oversight of student workers and ensure the safe and effective use of research facilities, equipment and instrumentation in accordance with established health and safety procedures.

Duties and Responsibilities

Indicate as clearly as possible the significant duties and responsibilities associated with the position. Indicate the approximate percentage of time for each duty. Describe duties rather than detailed work routines.

	Approximate % of time annually*
1. Project work. • Participate in project planning sessions to provide operational input on experimental designs, technology installations and test plans. Participate in the installation, execution and decommissioning of bench scale, pilot or full-scale experiments and technologies. • Assist with the adaptation and modification of existing facilities and equipment to accommodate new techniques and research projects. Carry out daily operations and maintenance of the CAWT's off campus research facility, under the guidance and direction of the CAWT Director, Research Site Coordinator and Principal Researcher(s). • Operate, maintain and troubleshoot technologies, equipment, and experiments including pumps, piping, valves, sensors, flow meters, autosamplers and associated mechanical and electrical control components. Conduct routine inspections, monitor system performance and identify and report operational issues. • Conduct manual and automated sample collection, perform field measurements, prepare and transport samples for laboratory analysis, and maintain accurate records of project activities, operational conditions, maintenance and sampling. • Follow established project outlines, test plans, operating procedures and health and safety protocols. Assist Facilities, Support Services (FSS), external contractors and vendors with the installation, maintenance and decommissioning of technologies and equipment. Provide onsite support and oversight while contractors and vendors are working at CAWT facilities, as required. • Provide operational updates, document project observations and contribute information on project operations and methods used to support technical reporting.	75%
2. Laboratory Analysis • Set-up, operate and perform routine maintenance of laboratory equipment and instrumentation including spectrophotometers, titrators, multimeters, incubators, drying ovens and other equipment required for routine laboratory analysis. • Perform accredited and non-accredited analysis in accordance with established methods and procedures, including but not limited to: pH, turbidity, dissolved oxygen, conductivity, alkalinity, biochemical oxygen demand, chemical oxygen demand, total suspended solids, and ammonia. • Follow established quality assurance and quality control procedures to ensure accuracy, repeatability and integrity of analytical data. Maintain detailed	15%

laboratory records, perform data entry and review data for accuracy within required timelines. • Participate in proficiency testing and internal audits as required to support ISO 17025:2017 accreditation, under the guidance of the CAWT Laboratory Coordinator.	
3. Training • Provide training to CAWT staff, student workers, placement workers and technicians on project operations, sample collection, equipment operation and routine analytical methods for which the incumbent has been trained and deemed competent. • Provide day-to-day guidance and oversight of student workers and lab technicians, ensuring assigned tasks are completed safely, accurately and in accordance with established procedures, policies and best practices. • Demonstrate the safe and proper use of research facilities, equipment and instrumentation.	5%
4. Other duties as assigned.	5%

* To help you estimate approximate percentages:

½ hour a day is 7%	1 hour a day is 14%	1 hour a week is 3%
½ day a week is 10%	½ day a month is 2%	1 day a month is 4%
1 week a year is 2%		

1. Education

A. Check the box that best describes the **minimum** level of **formal** education that is required for the position and specify the field(s) of study. Do not include on-the-job training in this information.

□ Up to High School or equivalent	□ 1 year certificate or equivalent	X 2 year diploma or equivalent
□ Trade certification or equivalent	□ 3 year diploma / degree or equivalent	□ 4 year degree or 3 year diploma / degree plus professional certification or equivalent

□ Post graduate degree (e.g. Masters) or 4 years degree plus professional certification or equivalent

□ Doctoral degree or equivalent

Field(s) of Study:

Environmental Technician, Biology, Chemistry, or other related science, engineering or technical discipline.

B. Check the box that best describes the requirement for specific course(s), certification, qualification, formal training or accreditation in addition to and not part of the education level noted above and in the space provided specify the additional requirement(s). Include only the requirement that would typically be included in the job posting and would be acquired prior to the commencement of the position. Do not include courses that are needed to maintain a professional designation.

X No additional requirements	
□ Additional requirements obtained by course(s) of a total of 100 hours or less	
□ Additional requirements obtained by course(s) of a total between 101 and 520 hours	

□ Additional requirements obtained by course(s) of a total of more than 520 hours	

2. Experience

Experience refers to the minimum time required in prior position(s) to understand how to apply the techniques, methods and practices necessary to perform this job. This experience may be less than experience possessed by the incumbent, as it refers only to the minimum level required on the first day of work.

Check the box that best captures the typical number of year of experience, in addition to the necessary education level, required to perform the responsibilities of the position and, in the space provided, describe the type of experience. Include any experience that is part of a certification process, but only if the work experience or on-the-job training occurs after the conclusion of the educational course or program.

□ Less than one (1) year	
□ Minimum of one (1) year	
X Minimum of two (2) years	• Practical experience conducting fieldwork, environmental monitoring or applied research. • Experience with the installation, operation, maintenance and troubleshooting of technical or research equipment. • Experience working with pumps, piping, plumbing, sensors, instrumentation and/or electrical control systems. • Experience collecting, handling and transporting environmental samples. • Experience performing basic laboratory analyses and following established methods and procedures. • Strong organizational, planning, time management and communication skills, with the ability to work independently. • Experience in water and wastewater treatment, pilot or full-scale research systems, and working in an ISO 17025 accredited laboratory would be considered assets. • Valid Class G driver's licence.
□ Minimum of three (3) years	
□ Minimum of five (5) years	

□ Minimum of eight (8) years	

3. Analysis and Problem Solving

This section relates to the application of analysis and judgement within the scope of the position.

The following charts help to define the level of complexity involved in the analysis or identification of situations, information or problems, the steps taken to develop options, solutions or other actions and the judgement required to do so.

Please provide up to three (3) examples of analysis and problem solving that are regular and recurring and, if present in the position, up to two (2) examples that occur occasionally:

	#1 regular & recurring
Key issue or problem encountered.	Changes in experimental testing plans, including changes to sampling frequency, operational requirements or testing duration.
How is it identified?	Changes to project requirements or test plans are communicated to the incumbent by the Research Site Coordinator or Principal Researcher(s). These changes may impact scheduled project activities, sample collection, equipment operations and laboratory analysis.
Is further investigation required to define the situation and/or problem? If so, describe.	The incumbent reviews the revised project requirements to identify impacts on scheduled activities, equipment and supply requirements, sample collection and other ongoing project work.
Explain the analysis used to determine a solution(s) for the situation and/or problem.	The incumbent reviews existing project schedules and operational requirements to determine how the changes can be accommodated within their assigned workload. Any scheduling conflicts, resource limitations or operational concerns are communicated to the Research Site Coordinator to determine the appropriate course of action.
What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	Project outlines, test plans, activity schedules, established procedures and past practices. The Research Site Coordinator and Principal Researcher(s) provide guidance and direction as required.

3. Analysis and Problem Solving

	#2 regular & recurring
Key issue or problem encountered	Issues encountered during sample collection and field monitoring that may affect sample integrity, data quality or the ability to meet project testing requirements.
How is it identified?	During routine sample collection, field measurements, site inspections or review of operational records. Examples include insufficient sample volume, incomplete composite samples, unusual sample characteristics or unexpected field measurements.
Is further investigation required to define the situation and/or problem? If so, describe.	The incumbent reviews sampling requirements, equipment settings, operational conditions and previous records to identify potential causes and determine whether samples and measurements meet established project requirements.
Explain the analysis used to determine a solution(s) for the situation and/or problem.	The incumbent uses established sampling and operating procedures to determine appropriate corrective actions. This may include checking sampling equipment, verifying equipment settings, repeating field measurements or repeating sample collection where permitted by the test plan. Issues that cannot be resolved through established procedures are documented and communicated to the Research Site Coordinator for further direction.
What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	Project test plans, sampling procedures, equipment manuals, quality management procedures and historical operational and sampling records. The Research Site Coordinator, Principal Researcher(s) and Laboratory Coordinator provide guidance as required.

	~~**#3 regular & recurring**~~
Key issue or problem encountered	
How is it identified?	
Is further investigation required to define the situation and/or problem? If so, describe.	
Explain the analysis used to determine a solution(s) for the situation and/or problem.	

What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	

3. Analysis and Problem Solving

#1 occasional (if none, please strike out this section)

Key issue or problem encountered	Operational issues or failures involving research technologies and associated equipment, including pumps, piping, valves, sensors, flow meters and autosamplers.
How is it identified?	Through site inspections, equipment alarms, monitoring of system performance or deviations from normal operating conditions. Examples include reduced flow, blocked piping, leaking connections, pump failures or lack of aeration.
Is further investigation required to define the situation and/or problem? If so, describe.	The incumbent inspects the affected equipment and reviews operational records, equipment settings and system conditions to identify potential causes of the issue.
Explain the analysis used to determine a solution(s) for the situation and/or problem.	The incumbent uses practical knowledge of the equipment and established troubleshooting procedures to identify potential causes and undertake corrective actions within their training and authorization. Following corrective action, the incumbent monitors system performance to confirm normal operations have resumed. More complex issues or those requiring specialized repairs are communicated to the Research Site Coordinator for further direction.
What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	Equipment manuals, operating procedures, maintenance records, system schematics and past practices. The Research Site Coordinator, Principal Researcher(s), Instrumentation Specialist and Facilities, Support Services (FSS) provide technical guidance as required.

#2 occasional (if none, please strike out this section)

Key issue or problem encountered	Issues encountered during the installation or integration of new research technologies and equipment into existing facilities and experimental systems.

How is it identified?	During installation, setup or initial operation of a technology or piece of equipment. Examples include incompatible piping connections, missing components, space limitations or equipment not operating as intended.
Is further investigation required to define the situation and/or problem? If so, describe.	The incumbent reviews installation instructions, equipment specifications and existing site conditions to identify the issue and determine what may be required to complete the installation.
Explain the analysis used to determine a solution(s) for the situation and/or problem.	The incumbent uses practical knowledge and experience to identify potential solutions and communicates findings to the Research Site Coordinator. Under their direction, the incumbent assists with modifications to existing equipment or infrastructure and verifies that equipment is operating as intended. Issues requiring changes to experimental designs, specialized repairs or external contractors are referred to the Research Site Coordinator.
What sources are available to assist the incumbent finding solution(s)? (eg. past practices, established standards or guidelines).	Equipment manuals, installation instructions, project test plans, site schematics and past practices. The Research Site Coordinator, Principal Researcher(s), Instrumentation Specialist and Facilities, Support Services (FSS) provide guidance as required.

4. Planning/Coordinating

Planning is a proactive activity as the incumbent must develop in advance a method of acting or proceeding, while coordinating can be more reactive in nature.

Using the following charts, provide up to three (3) examples of planning and/or coordinating that are regular and recurring and, if present in the position, up to two (2) examples that occur occasionally:

	#1 regular & recurring
List the project and the role of the incumbent in this activity.	Plan and organize assigned project activities for multiple ongoing research projects, including scheduled sample collection, field measurements, equipment operation, routine maintenance and laboratory analysis.
What are the organizational and/or project management skills needed to bring together and integrate this activity?	The incumbent must be well organized and have a good understanding of project requirements, sampling schedules and timelines. They must plan their daily and weekly workload to ensure assigned activities are completed within established timelines, taking into consideration sample holding times, equipment availability and competing project requirements.
List the types of resources required to complete this task, project or activity.	Test plans, project outlines, activity schedules, sampling schedules, operating procedures and equipment manuals.
How is/are deadline(s) determined?	Deadlines are established by the Research Site Coordinator and Principal Researcher(s) based on project requirements and test plans.
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	The incumbent may adjust the sequence of assigned tasks to accommodate daily operational needs, provided established project requirements and timelines are maintained. For example, the incumbent may reschedule routine equipment maintenance to accommodate time sensitive sample collection. Changes that may impact project timelines, testing requirements or the work of others are referred to the Research Site Coordinator.

4. Planning/Coordinating

	#2 regular & recurring
List the project and the role of the incumbent in this activity.	Prepare for and participate in the installation, modification and decommissioning of research technologies, experimental systems and associated equipment under the direction of the Research Site Coordinator and Principal Researcher(s).
What are the organizational and/or project management skills needed to bring together and integrate this activity?	The incumbent must review installation requirements, identify the tools, equipment and materials required, prepare work areas and organize assigned activities to ensure work is completed safely and within established timelines. Equipment or material requirements are communicated to the Research Site Coordinator in advance.
List the types of resources required to complete this task, project or activity.	Project outlines, installation instructions, equipment manuals, site schematics, activity schedules and health and safety procedures.
How is/are deadline(s) determined?	Deadlines are established by the Research Site Coordinator and Principal Researcher(s) based on project schedules and operational requirements.
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	The incumbent identifies and communicates issues that may affect assigned activities. For example, if components required for an installation are missing or incompatible with existing equipment, the incumbent informs the Research Site Coordinator and assists in identifying potential solutions. The Research Site Coordinator, in consultation with the Principal Researcher(s) as required, determines whether changes are necessary and assesses their impact on other activities.

	~~#3 regular & recurring~~
List the project and the role of the incumbent in this activity.	
What are the organizational and/or project management skills needed to bring together and integrate this activity?	

List the types of resources required to complete this task, project or activity.	
How is/are deadline(s) determined?	
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	

4. Planning/Coordinating

~~#1 occasional~~ ~~(if none, please strike out this section)~~

List the project and the role of the incumbent in this activity.	
What are the organizational and/or project management skills needed to bring together and integrate this activity?	
List the types of resources required to complete this task, project or activity.	
How is/are deadline(s) determined?	
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	

~~#2 occasional~~ ~~(if none, please strike out this section)~~

List the project and the role of the incumbent in this activity.	
What are the organizational and/or project management skills needed to bring together and integrate this activity?	

List the types of resources required to complete this task, project or activity.	
How is/are deadline(s) determined?	
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	

5. Guiding/Advising Others

This section describes the **assigned responsibility** of the position to guide or advise others (e.g. other employees, students). Focus on the actions taken (rather than the communication skills) that directly assist others in the performance of their work or skill development.

Though Support Staff cannot formally "supervise" others, there may be a requirement to guide others using the incumbent's job expertise. This is beyond being helpful and providing ad hoc advice. It must be an assigned responsibility and must assist or enable others to be able to complete their own tasks.

Check the box(es) that best describe the level of responsibility assigned to the position and provide an example(s) to support the selection, including the positions that the incumbent guides or advises.

Regular & Recurring	Occasional	Level	Example
X	□	Minimal requirement to guide/advise others. The incumbent may be required to explain procedures to other employees or students.	Explain established project operations, sample collection procedures, routine laboratory methods and health and safety procedures to student workers, placement workers and other CAWT staff.
□	X	There is a need for the incumbent to demonstrate correct processes/ procedures to others so that they can complete specific tasks.	Demonstrate the safe and proper operation of research technologies, field equipment and laboratory instrumentation. Provide practical training to students and other CAWT staff on project operations, sample collection and routine analytical methods for which the incumbent has been trained and deemed competent.
□	□	The incumbent recommends a course of action or makes decisions so that others can perform their day-to-day activities.	

□	X	The incumbent is an active participant and has ongoing involvement in the progress of others with whom he/she has the responsibility to demonstrate correct processes/procedures or provide direction.	Provide guidance and oversight of student workers and placement workers during assigned project activities. Observe work being performed, provide feedback and reinforce correct procedures to ensure tasks are completed safely and accurately.
□	□	The incumbent is responsible for allocating tasks to others and recommending a course of action or making necessary decisions to ensure the tasks are completed.	.

6. Independence of Action

Please illustrate the type of independence or autonomy exercised in the position. Consideration is to be given to the degree of freedom and constraints that define the parameters in which the incumbent works.

What are the instructions that are typically required or provided at the beginning of a work assignment?	
Regular and Recurring	Occasional (if none, please strike out this section)
The incumbent receives direction from the Research Site Coordinator regarding daily operations, assigned project activities and priorities. Principal Researcher(s) provide project outlines and test plans detailing experimental requirements, operational conditions and sampling schedules. The Laboratory Coordinator provides direction on analytical methods and quality control requirements. Once trained, the incumbent is expected to carry out assigned activities independently in accordance with established procedures and timelines.	

What rules, procedures, past practices or guidelines are available to guide the incumbent?	
Regular and Recurring	~~Occasional (if none, please strike out this section)~~
Project outlines, test plans, activity schedules, standard operating procedures, work instructions, equipment manuals, health and safety protocols and established laboratory quality management procedures. The incumbent also draws on previous training and experience with research technologies and equipment.	

How is work reviewed or verified (eg. feedback from others, work processes, Supervisor)?	
Regular and Recurring	Occasional (if none, please strike out this section)

Work is reviewed daily to several times weekly, depending on the activity, by the Research Site Coordinator, Principal Researcher(s) and/or Laboratory Coordinator. Project records, operational logs, sampling records and analytical data are reviewed to verify that activities have been completed in accordance with established project requirements and procedures. Feedback and direction are provided as required.	Internal and external audits and proficiency testing conducted as part of CAWT's ISO 17025:2017 accreditation provide additional verification of analytical work performed by the incumbent, where applicable.

6. Independence of Action

Describe the type of decisions the incumbent will make in consultation with someone else other than the Supervisor?	
Regular and Recurring	Occasional (if none, please strike out this section)
In consultation with the Research Site Coordinator, determine how assigned activities can be adjusted to accommodate changing operational requirements and competing project priorities. Consult with Principal Researcher(s) regarding unexpected operational conditions, sampling issues or deviations from established test plans. Consult with the Laboratory Coordinator regarding analytical procedures and quality control issues.	Consult with the Research Site Coordinator, Principal Researcher(s) and/or Instrumentation Specialist regarding equipment failures, installation issues or modifications to existing research systems that require additional technical expertise or direction.

Describe the type of decisions that would be decided in consultation with the Supervisor.	
Regular and Recurring	Occasional (if none, please strike out this section)
Changes to assigned duties, work schedules or workload priorities that cannot be resolved through routine operational coordination.	Health and safety, security or operational issues requiring managerial attention or intervention. Situations involving potential non-compliance with College policies or procedures, significant disruptions to research activities or expenditures requiring managerial approval.

Describe the type of decisions that would be decided by the incumbent.	
Regular and Recurring	Occasional (if none, please strike out this section)
Determine the sequence and organization of assigned daily activities to meet established project requirements and timelines. Determine appropriate routine maintenance, equipment checks and operational adjustments within established procedures. Identify issues with sample collection, field measurements and routine laboratory analyses and undertake corrective actions in accordance with established procedures. Provide practical direction and guidance to student workers during assigned activities.	Identify and implement corrective actions for unexpected equipment or operational issues within the incumbent's training and authorization. Determine when equipment or project activities must be stopped due to safety concerns or abnormal operating conditions and notify the Research Site Coordinator or CAWT Director as appropriate.

7. Service Delivery

This section looks at the service relationship that is an assigned requirement of the position. It considers the required manner in which the position delivers service to customers. It is not intended to examine the incumbent's interpersonal relationship with those customers and the normal anticipation of what customers want and then supplying it efficiently. It considers how the request for service is received and the degree to which the position is required to design and fulfil the service requirement. A "customer" is defined in the broadest sense as a person or groups of people and can be internal or external to the College.

In the table below, list the key service(s) and its associated customers. Describe how the request for service is received by the incumbent, how the service is carried out and the frequency.

Information on the service		Customer	Frequency (D, W, M. I)*
How is it received?	How is it carried out?		
Assigned project activities communicated through test plans, activity schedules and direction from the Research Site Coordinator and Principal Researcher(s).	Carry out daily project operations, operate research technologies, monitor system performance and maintain operational records in accordance with established procedures.	Research Site Coordinator, Principal Researcher(s)	D
Scheduled sample collection and field monitoring requirements outlined in project test plans.	Collect, label, preserve and transport samples, perform field measurements and maintain accurate sampling records.	Research Site Coordinator, Principal Researcher(s), Laboratory Coordinator	D
Requests for routine laboratory analysis as outlined in project test plans or communicated by CAWT staff.	Perform routine laboratory analyses following established methods and quality control procedures. Record and review analytical data for accuracy.	Principal Researcher(s), Laboratory Coordinator, Research Site Coordinator	W

Equipment maintenance requirements or operational issues identified during daily site activities.	Perform routine maintenance, investigate operational issues and undertake corrective actions within established procedures. Report issues requiring further technical support.	Research Site Coordinator, Principal Researcher(s)	W
Requests to install, modify or decommission research technologies and equipment.	Prepare equipment, materials and work areas. Assist with installation, modification and decommissioning under the direction of the Research Site Coordinator.	Research Site Coordinator, Principal Researcher(s)	M
Requests to provide practical training and guidance to staff and students.	Demonstrate established procedures, equipment operation, sample collection and routine laboratory methods. Provide guidance and feedback to ensure tasks are completed safely and accurately.	Student workers, placement workers, CAWT staff	I

* D = Daily W = Weekly M = Monthly I = Infrequently

8. Communication

In the table below indicate the type of communication skills required to deal effectively with others. Be sure to list both verbal (e.g. exchanging information, formal presentations) and written (e.g. initiate memos, reports, proposals) in the section(s) that best describes the method of communication.

Communication Skill/Method	Example	Audience	Frequency (D, W, M ,I)*
Exchanging routine information,	Exchange verbal and written information regarding daily project activities, operational conditions, sampling schedules, task completion and equipment requirements.	CAWT staff, Research Site Coordinator	D
Explanation and interpretation of information or ideas	Explain operational issues, equipment performance, unexpected observations and deviations from established procedures. Communicate findings through verbal updates, emails and operational records.	Research Site Coordinator, Principal Researcher(s), Laboratory Coordinator	D
Imparting technical information and advice	Provide technical information regarding equipment operation, installation requirements, troubleshooting and routine maintenance based on practical experience and observations.	Research Site Coordinator, Principal Researcher(s), Instrumentation Specialist, CAWT staff	W
Instructing or training			
Obtaining cooperation or consent			
Negotiating			

* D = Daily W = Weekly M = Monthly I = Infrequently

9. Physical Effort

In the tables below, describe the type of physical activity that is required on a regular basis. Please indicate the activity as well as the frequency, the average duration of each activity and whether there is the ability to reduce any strain by changing positions or performing another activity. Activities to be considered are sitting, standing, walking, climbing, crouching, lifting and/or carrying light, medium or heavy objects, pushing, pulling, working in an awkward position or maintaining one position for a long period.

Physical Activity	Frequency (D, W, M, I)*	Duration			Ability to reduce strain		
		< 1 hr at a time	1 - 2 hrs at a time	> 2 hrs at a time	Yes	No	N/A
Standing during project operations, sample collection and laboratory analysis.	D			X	X		
Walking between research technologies, sampling locations and operational areas.	D		X		X		
Sitting during data entry, documentation and review of project records.	D		X		X		
Bending, crouching and kneeling to collect samples, access equipment and perform routine maintenance.	D	X				X	
Working in awkward positions to access pumps, piping, valves, sensors and other equipment.	W	X				X	
Lifting and carrying light weight items including sample containers, hand tools and operational supplies.	D	X				X	
Lifting and carrying medium weight items including pumps, piping, tool boxes, equipment components and smaller laboratory equipment.	W	X				X	

Lifting and carrying heavy weight items including grinder pumps, submersible pumps, and larger equipment and technology components.	I	X				X	
Pushing and pulling equipment or moving materials during installations, modifications and decommissioning.	M	X				X	
Climbing and standing on ladders to collect samples or access valves, sensors and equipment at elevated heights.	M	X				X	

* D = Daily W = Weekly M = Monthly I = Infrequently

If lifting is required, please indicate the weights below and provide examples.

X Light (up to 5 kg or 11 lbs)	Sample containers, handheld instruments, sensors, hand tools, plumbing components and small laboratory equipment.
X Medium (between 5 to 20 kg or 11 to 44 lbs)	Coolers containing water and wastewater samples, pumps, piping, toolboxes, equipment components and smaller laboratory equipment.
x Heavy (over 20 kg or 44 lbs)	Grinder pumps, submersible pumps and larger equipment or technology components associated with research installations and decommissioning.

10. Audio Visual Effort

Describe the degree of attention or focus required to perform tasks taking into consideration:

- the audio/visual effort and the focus or concentration needed to perform a task and the duration of the task, including breaks (eg. up to 2 hours at one time including scheduled breaks)
- impact on attention or focus due to changes to deadlines or priorities
- the need for the incumbent to switch attention between tasks (eg. multi-tasking where each task requires focus or concentration)
- whether the level of concentration can be maintained throughout the task or is broken due to the number of disruptions

Provide up to three (3) examples of activities that require a higher than usual need for focus and concentration.

Activity #1	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Conducting scheduled sample collection, field measurements and experimental activities across multiple research projects. Requires concentration to ensure correct sampling locations, timing, sample handling, equipment settings and accurate recording of data in accordance with established test plans.	D			X
Can concentration or focus be maintained throughout the duration of the activity? If not, why? X Usually □ No There are occasional interruptions from staff.				

Activity #2	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Installing, adjusting and troubleshooting research technologies and associated equipment. Requires concentration when inspecting equipment, identifying operational issues, making adjustments and verifying proper system operation.	W		X	

Can concentration or focus be maintained throughout the duration of the activity? If not, why?
X Usually
□ No

Activity #3	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Performing routine laboratory analyses requiring attention to sample identification, reagent preparation, analytical procedures, quality control requirements and accurate recording of results.	W		X	
Can concentration or focus be maintained throughout the duration of the activity? If not, why? X Usually □ No				

* D = Daily W = Weekly M = Monthly I = Infrequently

11. Working Environment

Please check the appropriate box(es) that best describes the work environment and the corresponding frequency and provide an example of the condition.

Working Conditions	Examples	Frequency (D, W, M, I)*
X acceptable working conditions (minimal exposure to the conditions listed below)		
□ accessing crawl spaces/confined spaces		
□ dealing with abusive people		
□ dealing with abusive people who pose a threat of physical harm		
X difficult weather conditions	Occasionally (seasonal variations) need to work in wet, snow or cold temperatures to perform field procedures	I
□ exposure to extreme weather conditions		
exposure to very high or low temperatures (e.g. freezers)		
X handling hazardous substances	Handling raw and treated wastewater, sludge, biological materials, laboratory reagents, cleaning agents and disinfectants. Potential exposure to biological and chemical hazards during sample collection, equipment maintenance and routine laboratory analysis.	D
X smelly, dirty or noisy environment	Regular work at a municipal wastewater treatment plant and associated research facilities. Exposure to wastewater odours, wet and dirty working conditions, and noise from pumps, blowers and other operating equipment.	D
X travel	Travel between the Frost Campus,	D

	Minden research facility and other research locations in the Lindsay, Minden and Peterborough areas.	
X working in isolated or crowded situations	The incumbent may work independently at remote research facilities, including during weekend and statutory holiday operations when other CAWT staff may not be onsite.	D
□ other (explain)		

* D = Daily M = Monthly W = Weekly I = Infrequently