

Update

Ministry

Agriculture and Irrigation

Describe: Basic Job Details

Position

Position ID

Position Name (30 characters)

Dam Safety Technologist

Current Class

Job Focus

Supervisory Level

Agency (ministry) code

Cost Centre

Program Code: (enter if required)

Employee

Employee Name (or Vacant)

Organizational Structure

Division, Branch/Unit

☐ Current organizational chart attached?

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Supervisor's Current Class

Design: Identify Job Duties and Value

Changes Since Last Reviewed

Date yyyy-mm-dd

Responsibilities Added:

Responsibilities Removed:

Job Purpose and Organizational Context

Why the job exists:

The Dam Safety Technologist contributes to the delivery and stewardship of the dam and canal safety regulatory program through effective implementation of the Dam and Canal Safety Regulatory Framework, within government policies and procedures, industry best practices, and compliance assurance principles, in support of Department goals. The position also provides technical support to implement the

Responsibilities

Job outcomes (4-6 core results), and for each outcome, 4-6 corresponding activities:

Key responsibilities include but are not limited to:

Build collaborative approaches with the regulated community, qualified professionals, and others to achieve compliance goals by:

- documenting, tracking and reporting on work flows using the Environment Infrastructure Management System (EIMS) and the Digital Regulatory Assurance System (DRAS)
- providing support for dam safety educational initiatives
- promoting and encouraging regulatory compliance and safe dams and canals
- encouraging public confidence and trust

Support consistent, coordinated and effective delivery of the Dam and Canal Safety Program by:

- supporting the preparation of the Dam Safety Operational Plan and annual reporting
- maintaining a strong working knowledge of the Dam and Canal Safety Framework and industry best practices/technologies
- providing technical support to Dam Safety Engineers and the designated Director under the Water Act
- performing annual audit inspections of dam and canal infrastructure throughout the province in support the small dam inspection program
- preparing written correspondence and technical reports
- providing technical support for provincial dam and canal emergency management
- applying a working knowledge of computer assisted drafting, ArcGIS Pro and other related computer applications to projects as required

Support continuous improvement to the Dam and Canal Safety Program by:

- documenting and tracking regulatory activities and compliance

Support the implementation and continuous improvement of the Department's Dam Safety Management Program by:

- providing contract management support for engineering contracts
- implementing, promoting and enhancing the Branch Occupational Health and Safety Program
- providing technical support for Branch dam and canal emergency management
- contributing to Branch dam safety management committee activities
- collecting engineering instrumentation readings as required

Problem Solving

Typical problems solved:

Reporting to the Senior Dam Safety Engineer, the position is responsible for providing support to the Dam Safety team and for the quality and timeliness of the information provided to ensure effective implementation of the Dam and Canal Safety Regulatory Framework.

Types of guidance available for problem solving:

Requests for support and information can come from internal and external sources at all levels to meet long-term or urgent needs.

Direct or indirect impacts of decisions:

The position is responsible for the implementation of the Dam and Canal Safety Framework and providing technical support to the Dam Safety Team and the Water Infrastructure and Operations Branch. Support and information is to be provided in a professional, technically competent, and customer service oriented and manner.

Decisions made and activities completed by dam safety technologists are related to dam safety, emergency management, and public safety.

Key Relationships

Major stakeholders and purpose of interactions:

The Dam Safety Technologist interacts daily with other Dam Safety Regulator (unit) staff, and Water Infrastructure and Operations (Branch) staff, and regularly with dam owners and their staff, staff from Environment and Protected Areas, Alberta Emergency Management Agency, Alberta Energy Regulator, Canadian Dam Association, and engineering consultants. Public interactions are periodic.

Required Education, Experience and Technical Competencies

Education Level	Focus/Major	2nd Major/Minor if applicable	Designation
Diploma (2 year)	Engineering	Other	Other

If other, specify:

Certified Engineering Technologist (CET)

Job-specific experience, technical competencies, certification and/or training:

- Diploma in Civil Engineering Technology, or equivalent
- Must be eligible for membership with the Association of Science and Engineering Technology Professionals of Alberta (ASET)
- Ability to work independently
- Requires knowledge and experience in geotechnical instrumentation as well as a working knowledge of the principles of hydrology and hydraulics (hydrotechnical).
- Requires knowledge and experience in hydrotechnical and geotechnical assessments related to dams and canals.
- Requires knowledge of emergency management planning.
- Requires knowledge and experience in computer assisted drafting and mapping, database management, user interface development, and surveying
- Requires knowledge of dam safety management and best practices
- Requires good communication skills to interact with technical and non-technical individuals and organizations including engineers, managers, dam and canal operators, dam owners, members of the public
- Requires computer skills including Microsoft 365 (including Excel, Word, Outlook, Access), Adobe Acrobat, and ArcGIS
- Experience using Canary Systems, DRAS and EIMS is an asset
- Knowledge and understanding of the Alberta OH&S Act is an asset
- Knowledge and understanding of the policy cycle and the compliance assurance framework is an asset
- Knowledge and understanding of the Water Act, Water (Ministerial) Regulation, Alberta Dam and Canal Safety Directive, Canadian Dam Association guidelines and technical bulletins is an asset

Behavioral Competencies

Pick 4-5 representative behavioral competencies and their level.

Competency	Level					Level Definition	Examples of how this level best represents the job
	A	B	C	D	E		
Creative Problem Solving	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Is open to new ideas and breaks problems down to identify solutions: <ul style="list-style-type: none"> • Breaks down problems into small parts • Constructively questions and challenges the norm • Open to other's perspectives and aware of own • Contributes ideas for improving processes, and adapts existing practice 	

		to address problems	
Systems Thinking	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<p>Considers inter-relationships and emerging trends to attain goals:</p> <ul style="list-style-type: none"> • Seeks insight on implications of different options • Analyzes long-term outcomes, focus on goals and values • Identifies unintended consequences 	The Dam Safety Technologist will understand the importance of maintaining, updating and assembling all technical information used by the Dam Safety team as well as private dam owners and public that will be posted on the Dam Safety website.
Drive for Results	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<p>Actively sets goals and remains open to advice on reaching them:</p> <ul style="list-style-type: none"> • Sets goals and prioritizes work • Identifies and corrects areas for improvement • Suggests actions; asks for advice when lacking information or multiple priorities • Operates within APS value system 	The Dam Safety Technologist will identify and implement improved dam safety regulatory processes relevant to inventory of dams, tracking dam safety deficiencies/performance and follow-up.
Develop Networks	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<p>Maintains collegial internal relationships and understands external network:</p> <ul style="list-style-type: none"> • Seeks to understand perspectives and needs of others • Follows through, has integrity and respect for others • Helps and follows through • Keeps key stakeholders informed; is professional and respectful 	
Build Collaborative Environments	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<p>Works in an open honest manner with colleagues:</p> <ul style="list-style-type: none"> • Creates sharing opportunities • Actively shares, accepts and listens to others • Recognizes conflict, respects and discusses opinions openly • Supports group even to learn from mistakes • Recognizes differing interpretations 	The Dam Safety Technologist works closely with the Dam Safety team and facilitates the sharing of regulatory information through meetings and team updates.

Benchmarks

List 1-2 potential comparable Government of Alberta: [Benchmark](#)

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Assign

The signatures below indicate that all parties have read and agree that the job description accurately reflects the work assigned and required in the organization.

_____ Employee Name	_____ Date yyyy-mm-dd	_____ Employee Signature
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_____ Supervisor / Manager Name	_____ Date yyyy-mm-dd	_____ Supervisor / Manager Signature
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_____ Director / Executive Director Name	_____ Date yyyy-mm-dd	_____ Director / Executive Director Signature
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_____ ADM Name	_____ Date yyyy-mm-dd	_____ ADM Signature
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_____ DM Name	_____ Date yyyy-mm-dd	_____ DM Signature
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