

Job Description

Select Reason for Review

- ☐ New
- ☐ Update
- ☐ Reclassification

Every employee in the Alberta Government benefits from having clear expectations of their duties. A job description also supports organizational design, recruitment, employee performance, learning and development, and succession planning.

Use this tool to define a job.

Defining a job in three steps:

- Describe - Identify the job within the organization.
- Design - Describe job responsibilities and authorities.
- Assign - Sign to confirm responsibilities and submit to HR.

Ministry

Agriculture and Irrigation

Describe: Basic Job Details

Position

Position ID

Position Name (30 characters)

O & M Team Lead - Peace River

Current Class

Requested 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

Job Purpose and Organizational Context

Why the job exists:

Reporting to the Northern Operations Infrastructure Manager, Peace Athabasca Area, this position leads a team dedicated to the safe operation and maintenance of provincially owned water management infrastructure in the Peace - Athabasca Area of Central/North/Bow (CNB) Region of Water Infrastructure & Operations Branch (WIOB). Under the leadership of Operations Infrastructure Manager, this position leads water infrastructure operations, operational and nonoperational maintenance and project management of major repair, rehabilitation, capital works, and maintenance programs.

The focus of the position is ensuring, effective, consistent, safe project operations during all flow conditions to manage the impact of drought or flood conditions, provide safe and sufficient domestic water supplies to various groups (i.e. towns, villages, municipal districts, private landowners etc.) and manage water infrastructure for multi-purpose use (i.e. industrial, commercial & recreational). All these responsibilities are completed under the guidelines of the Federal and Provincial Fisheries Acts, Water Act, Public Lands Act, Navigable Waters Protection Act and the general OH&S regulations as stipulated by Alberta Environment's and Operations Infrastructure's Branch business plan to ensure a safe and sustainable water supply for this and future generations of Albertans.

The position will also actively build partnerships with Local Authorities, other departments and the general public in the region as it relates to the management of water resources in the region with a focus on public education and emergency preparedness. Another critical focus area for this position is the direction and leadership of all staff assigned to the Peace

Responsibilities

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

1. Operations:

- This position is responsible for the safe and efficient operation and maintenance of Alberta Environment's Infrastructure as per operational guidelines, within the Northern Region, encompassing an area equal to 62% of Alberta's total land base. Some structures looked after include the Paddle River Dam, Paddle and Pembina River Dyking, South Heart River Dams, Hutch Lake Dam, Winagami/ Girouxville Canal and Slave Lake (Town) Flood Control (trash rack, floodway and weir).
- Some other infrastructure works includes Moonshine Lake Dam, Sulphur Lake Dam, Stoney Lake Dam, Figure Eight Lake, Fawcett Lake, Buffalo Bay/Horse Lakes and approximately 15 other smaller infrastructure projects.

2. Public Safety

- To lead a team that assures that “*significant to very high consequence of failure*” dams and dykes are inspected, maintained, and operated to retain structural integrity and are operated within design criteria and the accepted Operations, Maintenance and Surveillance guidelines of Dam Safety Management Program.

3. Assured Water Supply

- In providing an assured water supply and effectively managing basins, water supply downstream, water quantity and quality for various municipal, industrial and riparian uses, including recreation and fish habitat.

4. Managing Floods

- To lead a team of operations experts to provide excellent decisions in very high stress conditions such as flood and drought emergencies.
- To make decisions on managing floodwaters to downstream communities such as Red Deer and Drumheller.

5. Managing Public Expectations

- The incumbent would provide necessary information that provides understanding of operational necessities and why certain decisions are made.

6. Local Workgroup and Contractor Safety

- Administer processes that work towards excellence in safety as it applies to all day-to-day activities.
- The site and team members meet Certificate of Recognition safety requirements.

7. Maintenance and Coordination with Alberta Transportation

- To assess, lead discussions and provide direction on major maintenance and capital rehabilitations priorities, and to participate in long range planning.
- To offer direction in unique technical areas of expertise as required.
- To ensure day-to-day operation, maintenance and surveillance requirements are met.
- Identifying and requesting non-operational maintenance, for the various infrastructures, through Alberta Transportation's Highway Maintenance Contractor, within the Northern Region.

8. Project management and contract administration:

- To prepare scope of work, RFP, RFQ and tender or contract documents.
- To work as contract manager or administrator on operational and non-operational contracts.
- To supervise and coordinate the work and address contract issues, prepare progress payment claim, prepare deficiencies and participate in warrant inspections.

9. Dam Safety Management Program

- To meet or exceeds the requirements under Dam Safety Management program (2018 Dam Safety Directive and Dam and Canal safety guidelines, the incumbent will:
 - Perform inspections and identify the deficiencies related to dam safety
 - Work as Project coordinator or site representative for dam safety initiatives or study projects
 - Provide information regarding project completed, critical deficiencies or concerns
 - Participate and contribute to the staff interviews and review reports such DSRs, FMEA and APRs, Deformation surveys and post DSR and FMEA session to plan and implement the recommendations
 - Implement recommendations or outcomes of the project at operations or strategic level

10. Infrastructure Performance Management and Reporting

- To evaluate the performance (physical condition, functional Adequacy, utilization and consequences of failure) of the water management infrastructure and reporting in EIMS annually.

- To participate in capital planning initiative based on the performance measures of Peace Athabasca area.
- To prepare project implementation reports, scope of work in RFP and work as region representative in capital projects such as replacement or rehabilitation of water management infrastructures.

11. Administrative

- To provide a means of communicating corporate messages, local objectives, and act as an advocate for the team as necessary.
- To assist staff in their career planning, annual reviews, and provide direction as to how they can help achieve future personal and group goals.
- To monitor and shape the business tone of the work group. To assure that each member is treated with professionalism, dignity and respect.

Senior Operator

- In addition to the above, to act as the Senior Operator, assuming all responsibilities with the other Operators in case of emergency or day-to-day operations.

12. Emergencies

- Depending upon the emergency, act as Site Commander or Coordinator in Regional Emergency Operation Center for dam emergencies.

13. Public Safety

- To assess and manage risk to the public visiting and recreating at our facilities. Also managing departmental liability by operating the facility in a safe “public conscious manner”.

14. Team Leadership

- To lead a group of experts to better themselves and the services we deliver.
- The incumbent independently supervises, directs, implements, and co-ordinates: contractors, trades people, technologists, professionals, other department and government staff and various other workers in construction, safety, maintenance, repair and/or rehabilitation of complex multiphase Water Management infrastructure.
- To instruct team on mechanical and civil inspection procedures.

15. Water Quality and Water for Life Objectives

- Interpret the “Water For Life” objectives and plan our operations to meet its goals through careful consideration and implementation of new learned behaviours.
- Assure water quality is improved downstream by following minimum flow-by requirements.

16. Cumulative Effects

- To ensure decision-making factors in the cumulative effects of operational decisions on the reservoir and the down stream basin and to ensure a “systems thinking” approach is taken when developing operational plans.

17. Employee and Contractor Safety

- To “walk the talk” when it comes to safety. Insist that all applicable legislation be implemented on site by staff, consultants and contractors and provide leadership as to how this should be done.

18. Equipment reliability and integrity

- To provide expert advise on equipment maintenance techniques. To monitor records of maintenance and inspections performed. To provide feedback as to effectiveness of maintenance program

19. Civil Structural Integrity

- To provide leadership and real time evaluations on dams, dykes, groynes, fuse plugs and other associated water retention assets. To provide highly technical condition reports and capital planning initiatives to specialized engineering staff or consultants based on many years of experience. To provide oversight to the geotechnical surveillance program for Paddle and South Heart Dams

20. Public Education

- Identify need and prepare material for public education as it applies to Water Management Operations

21. Stakeholder Relationships and Community Connection

- The position deals with stakeholders including the general public, public advisory committees, industrial and agricultural representatives, landowners, contractors, engineering and environmental consultants, local administrators, politicians, commercial and recreation representatives and various government departments both provincial and federal.
- Assume responsibility for, develop and maintain good relationships with stakeholder groups, or individuals, by regular meetings and presentations designed to meet varying levels of expertise.

- To be looking outside the box and assessing how we are accepted by our community and endeavour to be perceived as a valued member of that community.

22. Cover off

- To act as Central/Northern Operations Infrastructure Manager as required in his absence.
- Central/Northern or Water Management Operations.
- To be on committees as required for special projects.

Problem Solving

Typical problems solved:

Operational Knowledge Requirements:

- Contract administration, procedures & manuals.
- Construction equipment and its capabilities/usage.
- Financial coding and procedures.
- Vegetation management practices, identifications and procedures.
- The department's policies, procedures and regulations.
- The Water Act, Navigable Waters Protection Act, Environment Protection & Enhancement Act, Public Lands Act, OH&S Act & Regulations and Provincial and Federal Fisheries Acts.
- Legal land surveys, quantity surveys and construction surveys.
- Construction standards, codes and practices.
- Project scheduling and cost estimation.
- An understanding of the principals of hydrology, hydraulics, geotechnical, soil mechanics, urban and agricultural drainage systems, river engineering and erosion control.
- Working knowledge of the **Provincial Water Act**.

Operational Software Knowledge requirements:

- Newleaf/Citrix software for real time data access and WISKI, Canary and other surveillance programs.
- Multi-mon software for real time instrumentation data retrieval.
- Standard MS Windows bundled software (Word, Excel, and PowerPoint).

Operational/Maintenance Requirements:

- Knowledge of geotechnical instrumentations (piezometer, different type of inclinometers) and weir readings and interpret what readings indicate.
- Knowledge of computer hardware and IT requirements.
- Extensive knowledge of motors, hoists, gear reducers, pumps, generators, electrical systems, cranes and instruct workers on correct maintenance techniques.
- Knowledge of various communication systems.
- Knowledge of Programmable Logic Controllers.
- Knowledge of legislation controlling hazardous and non-hazardous materials around water bodies.

Occupational Health and Safety Training and Knowledge:

- Working knowledge of the **OH&S Regulation and Act**
- Working knowledge of the **OH&S Code**
- Standard First Aid
- Confined Space Entry Competency
- Defensive Driving
- Hazard Assessment/Risk Analysis

General Skill Sets/Knowledge Factors/Specialized techniques:

- The incumbent must have Diploma or Degree in Civil Engineering with knowledge of design and construction with extensive experience related to water management infrastructure which necessary to maintain and operation extreme, very high to low consequences dams and other water management infrastructure. Equivalency could be considered.
- The incumbent must have knowledge dealing with all stakeholders, including all levels of government and the general public.
- The incumbent must have a strong understanding of the Occupational Health and Safety Act and Regulations.
- The incumbent must use analytical skills when performing flow calculations and interpreting in-coming real time data and be willing to assume full responsibility for Operations decisions.
- The incumbent must be able to manage the mood of people working under stress and lead them to provide successful outcomes.

- The incumbent must be able to make sound decisions for extended periods of time in a stressful environment.
- Must be a team player to promote various department and branch objectives.
- Analytical and problem solving.

Ability to:

- Work independently and in high stress environments.
- Interpret technical reports, drawings, air photos and land titles.
- Communicate effectively, in both written and verbal forms with technical and non-technical groups or individuals.
- Apply professional judgement.
- Responsibly represent the department's position in public forums.
- Translate highly technical information into a form understandable by the public.

Skills Required:

- Interpersonal and team work skills.
- Good computer skills and abilities including proficiencies in MS Office (Excel, Power Point, Outlook, Word, etc.)
- Internet skills and engineering software.
- Specific safety training for a variety of hazardous activities.
- Time management skills.

Types of guidance available for problem solving:

The incumbent will have independence to manage all day-to-day aspects of the project operations and maintenance and stakeholder relations. For operations and potential dam emergencies the incumbent will reference Operation, Maintenance and Surveillance manuals, Emergency Management Plan documents and land management guidance. Also, guidance will be sought for problem solving and rational decision by Operations Infrastructure Manager.

Direct or indirect impacts of decisions:

Key Relationships

Major stakeholders and purpose of interactions:

- Peace Athabasca Operations Infrastructure Manager: understanding and assurance that conditions of satisfaction are met. Furtherance of reports as required and managing various issues as they arise.
- C/N Operations Infrastructure Manager: manage infrastructure related issues that require engineering input
- Land Management, Lethbridge: communicate concerns around land use of projects.
- Water Licensing Spruce Grove, Grand Prairie and Peace River areas: communicate real time water requests and make recommendations.
- River Forecasting Centre: to coordinate forecasting flow scenario info for operations decisions during high flow
- Regional Infrastructure Support Group in Edmonton
- Local Authorities (County of St. Lac Anne, Town and county of Barrhead, MD of Big lakes, Town and MD of Lesser Slave): communicating operations, maintenance, emergency preparedness, emergency response requirements and educational opportunities to local authority stakeholders (includes councillors, administrators, public works and emergency management professionals).
- Action Requests: to assist Manager in responding to any action request related to water management infrastructure such as project specific and historical information, flooding drought or land issues in the area.
- Many local farmers: land management issues. Resolving place based issues between stakeholders.
- Capital Project consultants: provide detailed operational and maintenance information to ensure capital work meets project needs.
- Department Lawyers: environment's Legal Department for various public safety issues.
- Various Emergency Response personnel at annual emergency response plan practice sessions.

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:

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

Diploma in Civil Engineering with 7 years experience and preference given to candidates holding a **Certified Engineering Technologist (C.E.T.)** designation; equivalent combinations of education and experience may also be considered.

- Proven experience in the **operation, inspection, and maintenance of civil infrastructure**, including:
 - Dams, canals, spillways, gates, and hydraulic regulating structures
 - Dikes, erosion control works, and river training systems
 - Practical knowledge of **instrumentation, electrical, and mechanical systems** associated with water infrastructure, including motorized gate operators and hoisting mechanisms.
 - Strong understanding of **dam safety regulations, regional water security, and public safety principles** associated with the ownership and operation of water control structures.
 - Familiarity with **seasonal operational variances** in canal and reservoir systems, including snowmelt, flood response, and irrigation demand cycles.
 - Working knowledge of **SCADA (Supervisory Control and Data Acquisition)** systems for remote monitoring and alarm response in water infrastructure.
 - Ability to interpret and apply **flow charts, hydrological data**, and system operations to regulate gates and control water flow accurately.
- Proficient in identifying, planning, and executing **preventive and corrective maintenance** programs.
- Demonstrated ability to troubleshoot operational and equipment issues efficiently in field settings.

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 type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Focuses on continuous improvement and increasing breadth of insight: <ul style="list-style-type: none"> • Asks questions to understand a problem • Looks for new ways to improve results and activities • Explores different work methods and what made projects successful; shares learning • Collects breadth of data and perspectives to make choices 	Must be able to identify issue/deficiency and recommend or troubleshoot to implement corrective action and solution by considering alternatives. Creating problem skills must leverage personal experience as well as input of team members and other support groups.

Agility	○ ○ ● ○ ○	<p>Identifies and manages required change and the associated risks:</p> <ul style="list-style-type: none"> • Identifies alternative approaches and supports others to do the same • Proactively explains impact of changes • Anticipates and mitigates emotions of others • Anticipates obstacles and stays focused on goals • Makes decisions and takes action in uncertain situations and creates a backup plan 	Anticipate and adjust to adopt anticipated or constant varying situations or condition in operations and surveillance while working in operations or maintenance
Systems Thinking	○ ● ○ ○ ○	<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 	Understanding the importance and impact of activities such as inspections, operations, maintenance, and rehabilitation of water management infrastructure is essential for enhancing public safety, supporting municipal services, meeting regulatory and licensing requirements, and protecting the environment.
Develop Networks	○ ○ ● ○ ○	<p>Leverages relationships to build input and perspective:</p> <ul style="list-style-type: none"> • Looks broadly to engage stakeholders • Open to perspectives towards long-term goals • Actively seeks input into change initiatives • Maintains stakeholder relationships 	This position works with minimal daily direct supervision which requires self initiative, organization, and performance tracking. This position supervises a staff member, so ongoing mentoring and individual development is essential to success.
Drive for Results	○ ○ ● ○ ○	<p>Takes and delegates responsibility for outcomes:</p> <ul style="list-style-type: none"> • Uses variety of resources to monitor own performance standards • Acknowledges even indirect responsibility • Commits to what is 	This position requires initiative related to working independently and with a subordinate staff member to plan and schedule operational and maintenance work, and identify areas for improvement as a result

		good for Albertans even if not immediately accepted • Reaches goals consistent with APS direction	of inspections.
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Benchmarks

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

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

Supervisor / Manager Name

Date yyyy-mm-dd

Supervisor / Manager Signature

Director / Executive Director Name

Date yyyy-mm-dd

Director / Executive Director Signature

ADM Name

Date yyyy-mm-dd

ADM Signature

DM Name

Date yyyy-mm-dd

DM Signature