

**BENCHMARK POSITION DESCRIPTION – BM #20
MINISTRY OF ENVIRONMENT**

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|---|---|
| 1. POSITION TITLE Dike Safety Specialist | 2. CLASSIFICATION LEVEL LSO 3 |
| 3. DIVISION Water Stewardship | 4. BRANCH Regional Operations |
| 5. IMMEDIATE SUPERVISOR Section Head, Flood Hazard Management | 6. LOCATION Lower Mainland |

Program Function Describe the purpose of the program and organization in which the position operates.

The Water Stewardship Division (WSD) provides provincial leadership in ensuring the water resources and aquatic ecosystems of British Columbia are safe, sustainable, and valued by all. The Division leads innovative approaches to water governance; develops legislation and non-regulatory tools; develops and delivers science and information critical to understanding and managing the water resource; and carries out the statutory and public safety functions. Regional operations are responsible for the delivery of a variety of major programs and services throughout the province. The program's goal is to maintain a sustainable environment in terms of the quality of air, water and land in balance with sustainable economic development. In some instances positions located in a Regional structure have provincial program responsibility.

Purpose of Position and Summary of its Functions This may be used for POSTING purposes.

The position is responsible for overseeing the management of all dikes and diking authorities throughout three Regions. The position reviews and approves engineering proposals for changes to dikes, new dikes and works and recommends, plans, and leads engineering related research projects. The position is also responsible for providing specialist advice and leadership in emergency flooding situations.

Organizational Structure and Working Environment

The position is one of five reporting directly to the section head. The position works with considerable independence and also functions as part of a team of technical specialists focused on flood hazard management issues.

Position's Specific Functions and How They are Performed

- 1. 35% Reviews and approves engineering proposals for changes to dikes, including new dikes and works designated Deputy Inspector of Dikes under current legislation by:**
 - Reviewing engineering drawings, specifying required drawing revisions and approving changes to dikes under current legislation
 - Approving construction in, around, under and through dikes
 - Reviewing and determining the acceptability of engineering reports prepared by consultants, engaged by private developers or others
 - Acting as the provincial representative and providing dike safety expertise and guidance to regional flood restoration projects

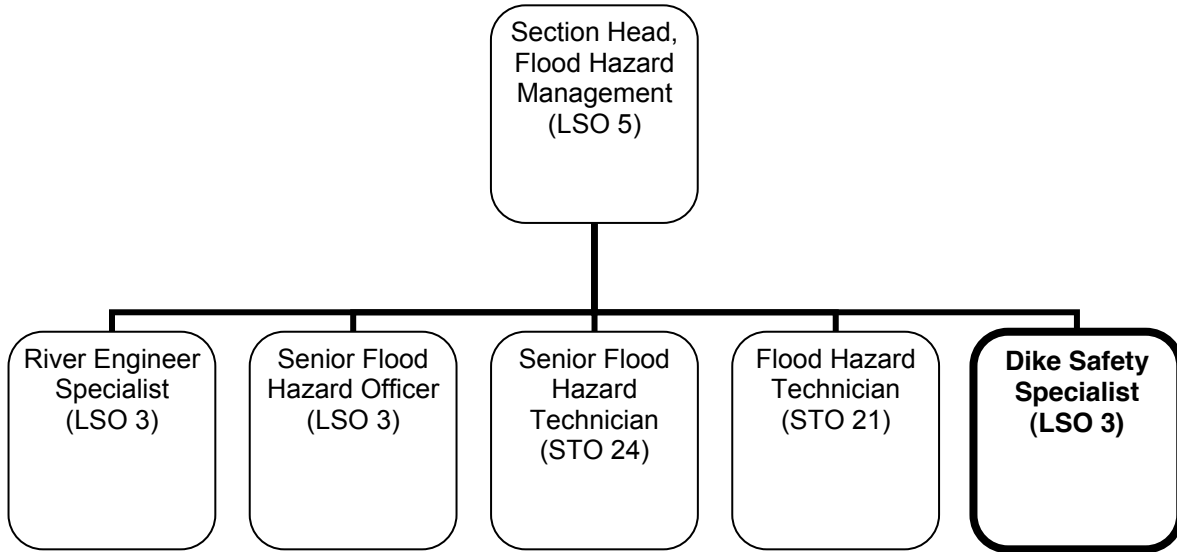
- 2. 25% Exercises general supervision of the operation of dikes and diking authorities as a designated Deputy Inspector of Dikes under current legislation by:**
 - Auditing and monitoring the inspection and maintenance programs of local diking authorities
 - Advising diking authorities on the proper operation of their diking system and providing technical advice on design, construction and maintenance of dikes, drainage, bank protection and pump stations
 - Providing direction to local authorities on the development, updating and implementation of flood protection works Operation and Maintenance Manuals
 - Drafting orders to diking authorities to effect repairs and/or make changes to their diking systems to ensure dike safety or to increase dike efficiency

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- Drafting orders to remediate the impacts of excavations or other work to ensure dike safety
 - Negotiating with local authorities to take over responsibility for the ownership, operation and maintenance of “orphan dikes”
 - Investigating problem areas and potentially unsafe conditions, specifying the required subsurface investigation and surveys and recommending remedial action
 - Analyzing information from dike design drawings and geotechnical reports
 - Completing independent stability and seepage analysis for sites where appropriate data is available
- 3. 20% Recommends, plans and leads engineering related research projects by:**
- Analyzing dike safety research needs and carrying out exploratory studies
 - Supervising the preparation of dike safety studies
 - Evaluating costs and benefits of proposed projects
 - Prioritizing projects
 - Consulting and exchanging information and data with research agencies and outside specialists
 - Directing data collection, compilation and analysis using complex computer models
 - Modifying and combining standard research methods and procedures
 - Developing adaptations to specifications and dike standards for specific projects for approval by the Inspector of Dikes
 - Overseeing the preparation of Requests for Proposals, reviewing bids and selecting successful bidders
 - Providing technical direction to private consultant licensed professionals carrying out dike safety investigations
 - Assessing data and reports prepared by consultant licensed professionals and preparing project evaluation reports
 - Ensuring consistent application of dike safety policies throughout the region
- 4. 15% Provides specialist advice and leadership in emergency flooding conditions by:**
- Assisting PEP, MoT and local authorities with flood contingency planning for diked areas
 - Acting as a Technical Specialist under the BC Flood Plan and providing geotechnical and river engineering expertise to the Provincial Regional Emergency Operations Centre
 - Assessing critical dike seepage and erosion problem areas
 - Directing emergency flood fighting work to prevent dike failure
 - Assessing dike safety status to support evacuation decisions
 - Acting as the Flood Assessment Leader under the BC Flood Plan
 - Making recommendations regarding infrastructure that will be sacrificed/compromised during major flooding events
 - Setting priorities for assessments and directing flood assessment teams
 - Responding to media enquiries
- 5. 5% Performs other related duties**

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ORGANIZATION CHART – DIKE SAFETY SPECIALIST



**BENCHMARK CLASSIFICATION RATIONALE – BM #20
MINISTRY OF ENVIRONMENT**

TITLE: Dike Safety Specialist

LEVEL: LSO 3

DIVISION/BRANCH: Environmental Protection/Regional Operations

| FACTOR | POINTS |
|---|---------------|
| <p><u>PURPOSE OF POSITION</u> The primary responsibility of this position is to oversee the management of all dikes and diking authorities and to review and approve proposals submitted by applicants or owners for changes to dikes. The position will also recommend and lead engineering related research projects.</p> <p><u>KNOWLEDGE</u> The work requires a considerable depth of knowledge of geotechnical engineering to review and approve complex engineering drawings of dikes and dike construction as submitted by owners. The requirement to assess embankment stability, undertake seismic assessments and to develop proposed adaptations to specifications and dike standards is considered to be interpretive and analytical and requires the position to make some judgements based on considerable field experience.</p> <p>Requires registration as a Professional Engineer.</p> | D(2) 113 |
| <p><u>JUDGEMENT</u></p> <p><u>Originality and Complexity:</u> The position exercises considerable professional judgement to determine whether all proposed changes to dikes, new dikes and diking systems, conform to policies, legislation, and regulations. The position will adapt solutions consistent with previously established patterns to resolve individual situations. While the position does review the work of consultant professionals engaged by applicants/owners, the topic position is not exercising technical supervision.</p> <p><u>Technical Supervision Received:</u> The position develops adaptations to specifications and dike standards for review and approval by the Inspector of Dikes, however much of the position's work output goes directly to clients when auditing the inspection and maintenance programs of diking authorities, negotiating with local authorities over responsibilities for ownership of 'orphan' dikes, and providing advice to private consultant professionals.</p> | B3 86 |
| <p><u>ORGANIZATION AND PROGRAM ROLE</u> The primary role of the position is to provide technical advice, recommendations and consultative services to municipalities, and district diking staff.</p> | II(a) 43 |
| <p><u>ADMINISTRATIVE SUPERVISORY RESPONSIBILITY</u> The position does not administratively supervise any staff.</p> | 0 |

TOTAL POINTS

242

| LEVEL | POINT RANGE |
|-----------------|-------------------------|
| 1 | 168 – 203 |
| 2 | 204 – 237 |
| <u>3</u> | <u>238 – 267</u> |
| 4 | 268 – 295 |
| 5 | 296 – 365 |