



PROCEDURAL GUIDELINES

Decommissioning of a Regulated Dike

1.0 Introduction

On occasion, a diking authority may no longer have need for an existing regulated dike and may want to decommission it so that it's no longer responsible for its operation and maintenance. This may occur in instances such as a new dike is built to replace the existing dike, or there is a desire by all stakeholders to return the protected area back to a natural floodplain.

1.1 Purpose and Limitations

These procedural guidelines have been developed to assist diking authorities in the *Dike Maintenance Act* (DMA) approval process for the decommissioning of regulated dikes and assist Inspectors in making statutory decisions on such applications.

Numerous criteria and issues must be considered in the decision-making process. These may vary from case to case and no specific step by step procedure covering all details of an individual case are established here. However, these guidelines provide logical steps that can be followed which should provide enough documentation to the Inspector for the basis of their decision.

These guidelines do not replace the discretion of the Inspector in making their decision. These guidelines do not replace the judgement of a professional engineer designing for or overseeing the decommissioning the dike, however the decision to approve an application rests with the Inspector per the DMA.

1.2 Definitions

The definitions of dike, Inspector, improvement district, municipality, order, private dike and diking authority shall be as defined in the *Dike Maintenance Act*.

The term “decision” and “Order” under the *Dike Maintenance Act* are used interchangeably.

Regulated dike – A dike regulated under the *Dike Maintenance Act*.



1.3 Legislation and Regulation

Regulatory controls on changes to existing dikes and related maintenance are fundamentally within the purview of the DMA. Per section 2 (4)(a) of the DMA, a person or diking authority must not lower or cause or allow to be lowered the elevation of a dike or decrease, or cause or allow to be decreased, the width or cross section of a dike unless it is done either with the prior written approval of the Inspector or in accordance with the regulations made under section 8 (2).

Local bylaws and various other Provincial and Federal legislation and or regulation may also apply to the decommissioning of a dike including (but not limited to):

- *Water Sustainability Act*
- *Land Act*
- *Emergency Management Act*
- *Environmental Assessment Act*
- *Canada Fisheries Act*

It is the responsibility of the agency and/or contractor undertaking the work to identify and obtain all necessary approvals prior to undertaking the work to decommission a dike.

The undertaking of works contained within the DMA approval is contingent on the diking authority having all necessary approvals in place. Undertaking work without having all necessary approvals is in contravention of the *Dike Maintenance Act*.

Lowering a dike without a *Dike Maintenance Act* approval is a serious offence and carries significant penalties.

2.0 Application Documentation

To allow for an efficient review process by the Inspector, the following documentation, as appropriate, should be included in an application for *Dike Maintenance Act* approval.

2.1 Design Brief

The design brief, prepared and sealed by a Professional Engineer registered in the Province of BC, shall provide a comprehensive summary of parameters and criteria (with appropriate reference to standards or codes) and any special conditions that apply to the proposed project. The report should include the following:

- Map showing the area of protection provided by the existing dike(s) and location of critical infrastructure.
- List of properties (legal lot names, PID, and addresses) corresponding to the map above.
- Sediment management plan.
- Details on proposed method(s) of removal, breach, or lowering of dike.
- Rationale for the request for decommissioning backed by engineering reports supporting such rationale.

- Assessment of the change in risk to all impacted properties and critical infrastructure.
- Additional mitigation proposed to offset new or higher risk imposed on properties or critical infrastructure (eg. construction of private dike, raising of land, etc.)
- Resolution in council or by the board to decommission the dike.
- Where the diking authority is not the owner of the land that the dike resides on, written consent to enter any lands for the construction work must be submitted.

2.2 Hydrologic/Hydraulic Report

- Modelling results that provide for the current level of protection (expressed as an Annual Exceedance Probability) provided by the existing works and the proposed level of protection (for lowering of dikes). **Note for decommissioning a lowered dike, the level of protection remaining must be for 1:10 year or less.** Please refer to the general guidelines for hydrologic/hydraulic design reports [here](#).
- In some circumstances critical flood levels may result from ice-related flooding, not a specified discharge frequency, and the level of flood protection must be accepted by the Inspector.
- The removal of an existing flood protection system must not transfer flood risk to third parties without their written consent (see 2.6). The hydraulic analysis shall be undertaken to specifically show where risk-transfer would occur.
- The hydrologic/hydraulic analysis shall evaluate the need for erosion control features for any remaining structure which may be threatened by wind, and water generated waves, stream or surface flows, to ensure any remaining structures do not pose a risk.
- The hydrologic/hydraulic analysis shall evaluate the need for erosion control features for any newly exposed properties or structures as a result of the removal/breach/lowering of the dike under the design flood.
- Once the specific details of the application are known the Inspector can provide further guidance on the requirements of a hydrologic/hydraulic report.

2.3 Design Drawings

- Design drawings (key plan, plan, and section) showing the areas of breach or height reduction, landside erosion protection of any remaining structure.
- A longitudinal profile of the dike showing existing crest elevations, proposed crest elevations, and a line showing the new flood level of protection elevation (for lowered dikes) and the 1 in 200 year (or other design flood specified by the Inspector) design flood elevation versus the new reduced height.
- Details on protection of any remaining structures (if required).
- Drawings for the DMA application must be signed and sealed by a qualified Professional Engineer.

2.4 Professional Letter of Commitment

- All designs and construction methods shall be certified by a qualified professional engineer, registered in BC, knowledgeable in the discipline they are sealing design/drawings or providing field review for.
- Please refer to our [website](#) under Approval Process, for the Professional Letter of Commitment template.

2.5 Records of Notification and Comment

- Record of notification and invitation to comment to all property owners currently protected by the structure and a consolidated copy of impacted property owners' comments.
- Record of notification and invitation to comment to appropriate agencies owning or controlling critical infrastructure currently protected by the existing structure and a consolidated copy of impacted the agencies' comments.
- The requirements for submission of the above records of notification and comment may be waived by the Inspector when the dike to be decommissioned has been replaced by a new dike providing an equal or greater level of flood protection to impacted third parties.
- **Note the Inspector may use the above information, or their discretion, to determine if a formal hearing is required prior to decision, the cost of which shall be borne by the applicant.**
- Note – it is recommended that property and critical infrastructure owners be given a minimum of 10 business days to respond to notification.

2.6 Written Consent for Transfer of Risk

- The removal of an existing flood protection system must not transfer flood risk (either an increased probability of flooding or increase in damages from flooding) to third parties' properties without their written consent.
- The requirement for written consent is not required when the dike to be decommissioned has been replaced by a new dike providing an equal or greater level of flood protection.

2.7 First Nations Engagement

- The Province will undertake the appropriate First Nations engagement as identified in their regional engagement plans.
- Engagement may be carried out as part of an application under the *Water Sustainability Act* for the same work.
- Note - Applicants should allow for a minimum of 30 days for Provincial/First Nations engagement and be prepared to provide additional information as required.