



CODE OF PRACTICE FOR OUTFALL STRUCTURES ON WATER BODIES

September 2003

made under the Water Act and the Water (Ministerial) Regulation

**Office Consolidation
Consolidated to include amendment of December 1, 2006 in
force as of 2007/02/15**

© Published by Alberta Queen's Printer

Queen's Printer Bookstore
Main Floor, Park Plaza
10611 - 98 Avenue
Edmonton, AB T5K 2P7
(780) 427-4952
Fax (780) 452-0668

E-mail: qp@gov.ab.ca
Shop on-line at <http://www.gov.ab.ca/qp>

ALBERTA ENVIRONMENT

CODE OF PRACTICE FOR OUTFALL STRUCTURES ON WATER BODIES [made under the *Water Act* and the *Water (Ministerial) Regulation*]

September 2003

<u>Table of Contents</u>	Section
Definitions	1
Bound by the Code of Practice	2
Notice to the Director	3
Notice where the outfall structure activity is not completed within time period	4
Emergency	5
Plans	6
Maps and class of water bodies	7
Pre-Construction	8
Construction methods and conditions	9
Restricted activity periods	10
Certification	11
Reporting	12
Record keeping and information availability	13
Monitoring of outfall structure	14
Code of Practice review and amendment	15

Schedules

- 1 Notice to the Director
- 2 Plans
 - Part 1, Design and Construction Standards
 - Part 2, Requirements for Information and Written Specifications for Plans of Outfall structure activity
- 3 Construction Conditions
 - Part 1, Class A Water Bodies
 - Part 2, General Conditions for Outfall Structure Activities in Class B, C and D Water Bodies
 - Part 3, Class B Water Bodies – Isolation Method
 - Part 4, Class C Water Bodies – Isolation Method
 - Part 5, Class D Water Bodies (Uncoded water bodies)
- 4 Qualified Aquatic Environment Specialist's Written Specifications
- 5 Water Act Code of Practice Management Area Maps

Definitions

- 1(1) All definitions in the *Water (Ministerial) Regulation* and in section 1 of the *Water Act* apply except where expressly defined in this Code of Practice.
- (2) In this Code of Practice:
 - (a) “carry out” when used in the context of an outfall structure activity includes to commence or continue an outfall structure activity;
 - (b) “class” means the class of a water body that is specified in section 7, or that is designated by a class symbol on a map that is listed in Schedule 5;
 - (c) “Department” means the Department administered by the Minister;
 - (d) “emergency” means a situation where there is an imminent risk to the aquatic environment, public health or safety, or an imminent risk of structural failure of an outfall structure;
 - (e) “fish” means fish used for domestic, sport and commercial purposes, and fish of special concern, including but not limited to rare, endangered, threatened or vulnerable species;
 - (f) “isolation method” means an outfall structure construction technique in which there is an excavation of an area in the bed or banks of a water body, and isolation of the surface water in the water body from the excavation area, including but not limited to a flume, dam and pump, high volume pump bypass and two stage coffer dams;
 - (g) “map” means a water management area map listed in Schedule 5, and includes the legends and special conditions on a map;
 - (h) “mapped water body” means a water body that appears on a map that is listed in Schedule 5;
 - (i) “open method” means an outfall structure construction technique in which there is an excavation of an area in the bed or bank of a water body, that is not isolated from surface water in the water body;
 - (j) “outfall structure” means a pipe or structure in, on, under, or adjacent to a water body, that is constructed for the discharge of:
 - (i) precipitation that has fallen and been collected, or

- (ii) liquid and water-carried wastes, to a water body, and includes any associated structure that is required for the installation, maintenance or protection of the outfall structure;
- (k) “outfall structure activity” means the placement, construction, installation, maintenance, replacement or removal of all or part of an outfall structure, or any activity associated with that placement, construction, installation, maintenance, replacement or removal;
- (l) “plan” means a plan specified in section 6;
- (m) “productive capacity” means the natural capability of habitats that comprise the aquatic environment to produce healthy fish that are safe for human consumption, or to support or produce the naturally occurring diversity of aquatic organisms upon which fish depend;
- (n) “professional engineer” means a Professional Engineer or Registered Professional Technologist (engineering), registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta;
- (o) “qualified aquatic environment specialist” means a person who:
 - (i) possesses:
 - (A) a post-secondary degree in biological sciences;
 - (B) a technical diploma in biological sciences; or
 - (C) educational equivalencies,
 - (ii) has a detailed knowledge of the aquatic environment, including fish and fish habitat, management and assessment, and
 - (iii) is currently experienced with:
 - (A) fisheries and aquatic environment assessment methods; and
 - (B) the determination of mitigation measures required to maintain the productive capacity of the aquatic environment, including fish habitats in Alberta that may be adversely affected by the carrying out of an outfall structure activity in and adjacent to the water, bed and shore of water bodies;
- (p) “restricted activity period” means the time period set out in this Code of Practice during which, generally, no outfall structure activity is permitted;

- (q) “this Code of Practice” means the *Code of Practice for Outfall Structures on Water Bodies*, published by the Department, as amended or replaced from time to time;
- (r) “uncoded water body” means a water body that appears on a map listed in Schedule 5, and that has no class symbol specified on the map;
- (s) “unmapped water body” means a water body that does not appear on a map listed in Schedule 5;
- (t) “UTM coordinates” means coordinates that use the Universal Transverse Mercator grid to identify or plot the specific location of a site or object; and
- (u) “water body” means, for the purpose of this Code of Practice, a water body with defined bed and banks, whether or not water is continuously present, but does not include fish bearing lakes.

Bound by Code of Practice

- 2 Any person who carries out an outfall structure activity shall comply with the requirements set out in this Code of Practice.

Notice to the Director

- 3(1) For the purposes of section 4 of the *Water (Ministerial) Regulation*, a person who carries out an outfall structure activity must provide notice to the Director, in writing, at least 14 calendar days before any outfall structure activity is carried out, or within a time specified in writing by the Director.
 - (2) The written notice under subsection (1):
 - (a) must contain all the information specified in Schedule 1, unless otherwise specified in writing by the Director; and
 - (b) authorizes a person to carry out the outfall structure activity in accordance with this Code of Practice for the period of time specified in the notice.
 - (3) The outfall structure activity must be conducted in accordance with the information contained in the written notice provided to the Director under subsection (1).
 - (4) The person carrying out an outfall structure activity shall provide the Director with written notice in accordance with subsection (1), regarding any change to the information contained in the original notice.

Notice where the outfall structure activity is not completed within time period

- 4(1) Where notice is provided in accordance with section 4(1) of the *Water (Ministerial) Regulation* and section 3 of this Code of Practice, and the outfall structure activity has not been completed within the time period specified in the notice, the notice is no longer valid, and a person who carries out an outfall structure activity must provide a new notice prior to carrying out the outfall structure activity.
- (2) The new notice under subsection (1) must contain:
- (a) the new date for the commencement or continuation of the outfall structure activity;
 - (b) the information specified in clause (i) of Schedule 1, as applicable; and
 - (c) any information that has changed from the information provided in the original notice.

Emergency

- 5(1) Where there is an emergency that makes it impossible for a person who carries out an outfall structure activity to provide notice in accordance with section 3, a person who carries out an outfall structure activity must:
- (a) take appropriate measures to deal with the emergency; and
 - (b) immediately inform the Director by telephone at 1-800-222-6514 of the emergency.
- (2) Information under subsection (1)(b) must contain:
- (a) the information specified in clauses (a), (b), (d), (e) and (f) of Schedule 1;
 - (b) the legal description of the land on which the outfall structure is located;
 - (c) any other information regarding the nature of the emergency that is available to the person carrying on the outfall structure activity at the time; and
 - (d) any other information requested by the Director.
- (3) Within 30 days of completion of the measures required to resolve the emergency, the person who carries out an outfall structure activity must provide the Director with the following information:
- (a) information specified under clause (c) in Schedule 1;

- (b) a description of the construction methods and conditions as described in section 8 and Schedule 3, as applicable, that were used in carrying out the outfall structure activity; and
- (c) a description of measures taken to meet the applicable requirements of Part 1 of Schedule 2, section 9 and Schedule 3 of this Code of Practice, including a statement whether the outfall structure activity incorporated the specifications of a qualified aquatic environment specialist.

Plans

- 6(1) At least 14 days before an outfall structure activity is carried out, a person who carries out an outfall structure activity must prepare a plan for the outfall structure activity that contains the following:
 - (a) the written information and specifications prepared and certified by a professional engineer as meeting the requirements specified in Schedule 2;
 - (b) the construction methods and conditions to be used in carrying out the outfall structure activity as determined in accordance with sections 8, 9 and 10 and Schedule 3, indicating the written specifications of a qualified aquatic environment specialist, and how those are incorporated into the plan;
 - (c) an outline of the contingency measures to be taken in the event of conditions that may cause adverse effects, taking into account any restricted activity periods;
 - (d) monitoring measures that will be used prior to and in carrying out the outfall structure activity, as contained in the written specifications of a professional engineer, person carrying out an outfall structure activity and a qualified aquatic environment specialist, under sections 8 and 9 and Schedule 3 of this Code of Practice; and
 - (e) specification of the monitoring measures that will be taken, during the anticipated lifespan of the outfall structure, to meet the requirements of this Code of Practice.
- (2) A person who carries out an outfall structure activity must comply with the plan prepared for the outfall structure activity under subsection (1), except where measures must be taken to resolve an emergency.

- (3) Notwithstanding subsection (1), after notice to the Director has been provided in accordance with section 3(1), a person who carries out an outfall structure activity shall not change a plan unless:
 - (a) the change complies with this Code of Practice; and
 - (b) notice of the change is provided to the Director in accordance with section 3 and Schedule 1.
- (4) Where a change is made to a plan under subsection (3), all of the provisions of this Code of Practice apply to the change as if the change had been included in the original plan under subsection (1).

Maps and class of water bodies

- 7(1) A map that is listed in Schedule 5 forms part of this Code of Practice and:
 - (a) designates the class of a mapped water body as Class A, B, C or D;
 - (b) specifies the restricted activity period for each class of water bodies;
 - (c) provides the location of Class A and B water bodies; and
 - (d) specifies special conditions for some water bodies for the purposes of this Code of Practice, subject to subsection (5).
- (2) The class of a mapped water body is the class that is designated by a class symbol on a water management area map except:
 - (a) where a mapped Class C water body is a tributary to a Class A water body, that portion of the water body for a distance of 2 kilometres upstream from the point where it enters the Class A water body is Class A;
 - (b) where a mapped Class C water body is a tributary to a Class B water body, that portion of the water body for a distance of 2 kilometres upstream from the point where it enters the Class B water body is Class B;
 - (c) where a mapped Class B water body is a tributary to a Class A water body, that portion of the water body for a distance of 2 kilometres upstream from the point where it enters the Class A water body is Class A; and

- (d) where a mapped Class D water body is a tributary to a Class A, B or C water body, that portion of the tributary water body for a distance of 2 kilometres upstream from the point where it enters the Class A, B or C water body is the same class as the water body that is entered.
- (3) The class of an uncoded water body is as follows:
- (a) Class D, unless otherwise specified in clause (b); and
 - (b) where an uncoded water body is a tributary to a Class A, B or C water body, that portion of the uncoded water body for a distance of 2 kilometres upstream from the point where the uncoded water body enters the Class A, B or C water body is the same class as the Class A, B or C water body that is entered.
- (4) The class of an unmapped water body is as follows:
- (a) where an unmapped water body enters a mapped Class A water body, the unmapped water body:
 - (i) is Class A along that portion of the unmapped water body that is within a distance of 2 kilometres upstream from the mouth of the unmapped water body, including where the unmapped water body is dry or frozen to the bed of the water body at the time of the outfall structure activity, and
 - (ii) is Class B for any other portion of the unmapped water body;
 - (b) where an unmapped water body enters a mapped Class B water body, the unmapped water body:
 - (i) is Class B along that portion of the unmapped water body that is within a distance of 2 kilometres upstream from the mouth of the unmapped water body, including where the unmapped water body is dry or frozen to the bed of the water body at the time of the outfall structure activity, and
 - (ii) is Class C along any other portion of the unmapped water body;

- (c) where an unmapped water body enters a mapped Class C water body, the unmapped water body:
 - (i) is Class C along that portion of the unmapped water body that is within a distance of 2 kilometres upstream from the mouth of the unmapped water body, and
 - (ii) is Class C along any other portion of the unmapped water body, and the requirements regarding restricted activity periods under section 10(5)(b) apply;
 - (d) where an unmapped water body enters a mapped Class D water body, the unmapped water body is Class D; and
 - (e) where an unmapped water body enters a fish bearing water body, whether or not the fish bearing water body is mapped, the entirety of the unmapped water body is Class C, and the requirements regarding restricted activity periods under section 10(6) apply.
- (5) The maps identified in subsection (1), and listed in Schedule 5, are revised with the following corrections and additions:
- (a) High Prairie Management Area
 - (i) Unnamed mapped water body - the entire length of an Unnamed Creek (Twp 87 Rge 04 W5M) connecting Peerless Lake and Graham Lake is designated as a Class C Water Body having a Restricted Activity Period of September 10 to July 15.
 - (b) Edson Management Area
 - (i) Cardinal River - the Restricted Activity Period for the entire mapped length of the Cardinal River and its tributaries upstream of the confluence with the Brazeau River is changed to the period of September 1 to April 30 and May 15 to August 15.
 - (c) Pincher Creek Management Area
 - (i) Crowsnest River and tributaries - the Restricted Activity Period for the Crowsnest River, from Crowsnest Lake to Secondary Highway 507, and for the three mapped water bodies entering this reach of the Crowsnest River from the south, is changed to the period of September 1 to April 5 and May 15 to July 15.

- (d) Lethbridge Management Area
 - (i) The Restricted Activity Period for all water bodies within the Lethbridge Management Area having a “Yellow” colour code, excepting the named water body Rolph Creek, is changed to the period of April 1 to May 31.
 - (ii) St. Mary River - the Restricted Activity Period for the St. Mary River from the confluence with Pothole Creek to the confluence with the Oldman River is changed to the period of September 1 to August 15.
 - (iii) Oldman River - the Restricted Activity Period for the Oldman River from the confluence of the Belly River to the confluence of the St. Mary River is changed to the period of September 1 to August 15.
- (e) Fort McMurray Management Area
 - (i) McKay River tributary - the Restricted Activity Period for the mapped Class C water body entering the McKay River at Sec 27 Twp 92 Rge 12 W4M is changed to the period of April 16 to July 15.
- (f) Lac La Biche Management Area
 - (i) La Biche River - the designation of the portion of the La Biche River in Twp 69 Rge 17 W4M is changed from a Class A water body to a Class C water body with a Restricted Activity Period of April 16 to July 15.
- (g) St. Paul Management Area
 - (i) Uncoded water body – the designation of an uncoded water body, locally known as Oldman Creek, which is a tributary to the North Saskatchewan River, for a distance of 2 kilometres upstream from the road allowance located between SW 26 and SE 27, Twp 53, Rge 23 W4M, is designated as a Class C water body with a Restricted Activity Period of October 16 to June 30.

- (h) Camrose Management Area
 - (i) Unnamed water body - the designation of the mapped water body in Twp 41 Rge 1- 2 W4M running from Gillespie Lake to Killarney Lake is changed from a Class C water body to a Class D water body.
- (i) Rocky Mountain House Management Area
 - (i) Dogpound Creek - the Restricted Activity Period for Dogpound Creek and all mapped Class C water bodies that are tributaries to Dogpound Creek downstream from Secondary Highway 582 to the confluence with the Little Red Deer River is changed to the period of September 16 to June 30.
 - (ii) Beaver Creek - the designation of Beaver Creek as a Class A water body is changed to designate only that portion of Beaver Creek contained in the SW 5 Twp 36 Rge 5 W5M as a Class A water body.
- (j) Calgary Management Area
 - (i) Flat Creek tributary – the designation of the mapped water body (locally known as Cutthroat Creek) in Sec 13, 24 Twp 17 Rge 5 W5M and Sec 19, 29, 33 Twp 17 Rge 4 W5M that is a tributary to Flat Creek is changed from a Class D water body to a Class C with a Restricted Activity Period of May 16 to August 15 and September 1 to April 30.
 - (ii) Sullivan Creek tributaries – all mapped water bodies that are tributaries to Sullivan Creek are designated as Class C water bodies with a Restricted Activity Period of May 16 to August 15 and September 1 to April 30.
 - (iii) Ings Creek - the Restricted Activity Period for Ings Creek is changed to the period of May 16 to August 15 and September 1 to April 30.
 - (iv) Storm Creek - the designation of Storm Creek upstream of the confluence with Mist Creek is changed from a Class C water body to a Class A.

- (v) Highwood River and tributaries - the Restricted Activity Period for the Highwood River upstream of the confluence with Petisko Creek and all the mapped water bodies that are tributaries to the Highwood River (with the exception of Storm Creek) upstream of the confluence of the Highwood River with Cataract Creek is changed to the period of September 1 to August 15.
- (vi) Threepoint Creek and tributaries – the Restricted Activity Period for Threepoint Creek and all mapped Class C water bodies that are tributaries to Threepoint Creek upstream of the confluence with Pothole Creek is changed to the period of September 16 to April 15 and May 1 to August 15.
- (vii) Sheep River and tributaries - the Restricted Activity Period for the Sheep River and all mapped Class C water bodies that are tributaries to the Sheep River upstream of the confluence with Threepoint Creek is changed to the period of September 1 to August 15.
- (viii) Elbow River - the Restricted Activity Period for the Elbow River upstream from the Glenmore Reservoir to the confluence with Bragg Creek is changed to the period of September 16 to April 15 and May 1 to July 15.
- (ix) Elbow River tributaries - the Restricted Activity Period for all Class C mapped water bodies that are tributaries to the Elbow River upstream of the confluence with Bragg Creek is changed to the period of May 16 to August 15 and September 1 to April 30.
- (x) Jumpingpound Creek and the Little Jumpingpound Creek - the Restricted Activity Period for Little Jumpingpound Creek (a locally known water body that is a tributary to Jumpingpound Creek) and Jumpingpound Creek downstream from the confluence of Little Jumpingpound Creek is changed to the period of September 16 to April 15 and May 1 to July 15.

- (xi) Jumpingpound Creek and other tributaries - the Restricted Activity Period for Jumpingpound Creek and mapped Class C water bodies that are tributaries to Jumpingpound Creek upstream from the confluence of Little Jumpingpound Creek is changed to the period of September 1 to August 15.
- (k) Canmore Management Area
 - (i) Smith-Dorrien Creek - the designation of Smith-Dorrien Creek is changed from a Class B water body to a Class A.
 - (ii) Jumpingpound Creek and tributaries - the Restricted Activity Period for Jumpingpound Creek and mapped Class C water bodies that are tributaries to Jumpingpound Creek is changed to the period of September 1 to August 15.
 - (iii) Little Jumpingpound Creek - the Restricted Activity Period for mapped Class C water bodies that form Little Jumpingpound Creek (a locally known water body that is a tributary to Jumpingpound Creek) is changed to the period of September 16 to April 15 and May 1 to July 15.
 - (iv) Bow River tributaries - the Restricted Activity Period for mapped Class C water bodies in Twp 27 Rge 6 W5M that are tributaries to the Bow River is changed to the period of September 16 to April 15.
 - (v) Bow River tributaries located in or near Canmore, Alberta locally known as Bill Griffiths Creek, Policeman Creek, Spring Creek, Canmore Creek – the designation of Bill Griffiths Creek as a Class A water body is changed to apply to the entire length of Bill Griffiths Creek. The designation of Policeman Creek, Spring Creek and Canmore Creek as Class A water bodies is changed to Class B for their entire length with a Restricted Activity Period of September 1 to April 30.

- (vi) Ghost River tributaries - the Restricted Activity Period for mapped Class C water bodies in Twp 26,27 Rge 7,8 W5M and Twp 27 Rge 6 W5M that are tributaries to the Ghost River is changed to the period of May 16 to August 15 and September 1 to April 30.

Pre-Construction

- 8 Before any outfall structure activity is commenced, the person carrying out the outfall structure activity must, for water bodies that are designated as Class A, B or C water bodies, take photographs or video-recordings of the water body at the outfall structure site as follows:
 - (a) one or more photographs or video-recordings of the water body upstream from the outfall structure site;
 - (b) one or more photographs or video-recordings of the water body downstream from the outfall structure site; and
 - (c) two or more photographs or video-recordings at the outfall structure site, one of each bank taken from the opposite bank.

Construction methods and conditions

- 9(1) In addition to complying with the requirements for restricted activity periods under section 10, any person carrying out an outfall structure activity shall comply with the following requirements:
 - (a) each outfall structure activity must comply with the requirements of:
 - (i) clause (a), and
 - (ii) clause (b) in Part 1 of Schedule 2;
 - (b) for an outfall structure activity that takes place in a Class A water body:
 - (i) the construction of a new outfall structure is not allowed,
 - (ii) the repair or maintenance of an existing outfall structure must be done:
 - (A) using the isolation method; or

- (B) in accordance with the written specifications of a qualified aquatic environment specialist;
 - unless the water body is dry or frozen to the bed of the water body at the time of the outfall structure repair or maintenance activity, and
 - (iii) where the replacement of a section of the outfall structure is required, the discharge capacity of the replacement outfall structure must not exceed the discharge capacity of the outfall structure that existed before the replacement outfall structure activity occurred;
 - (c) for an outfall structure activity that takes place in a Class B, C or D water body, the following construction methods and conditions for carrying out the outfall structure activity must be followed:
 - (i) for a method other than the isolation method, Part 2 of Schedule 3 shall be followed,
 - (ii) for the isolation method:
 - (A) the conditions in the applicable part of Schedule 3 shall be followed; and
 - (B) the isolation method shall be carried out in accordance with the written specifications of a qualified aquatic environment specialist, as determined in accordance with subsection (2) of this section; or
 - (C) carried out in accordance with Part 5 of Schedule 3, if the water body is dry or frozen to the bed of the water body at the time of the outfall structure activity.
- (2) For the purposes of this section:
- (a) the determination of whether clause (b) in Part 1 of Schedule 2 will be met, must:
 - (i) be conducted by a professional engineer, and
 - (ii) take into account the technical and environmental feasibility of the construction method or condition; and
 - (b) the determination of whether a construction method or condition will meet the requirements of clause (a) in Part 1 of Schedule 2 must be conducted by a qualified aquatic environment specialist.

Restricted activity periods

- 10(1) Unless otherwise authorized under this section, no person shall carry out any outfall structure activity within any applicable restricted activity period.
- (2) Subject to subsections (3), (4), (5) and (6), each permitted outfall structure activity:
- (a) must be carried out for mapped Class A water bodies, within the time period specified by a qualified aquatic environment specialist;
 - (b) must be carried out in mapped Class B and C water bodies, outside the restricted activity period specified on the applicable map, or within the time period specified by a qualified aquatic environment specialist;
 - (c) may be carried out within the restricted activity periods for Class C water bodies that are dry or frozen to the bed of the water body at the time of the outfall structure activity; and
 - (d) on a Class D water body does not have a restricted activity period.
- (3) Where an unmapped water body enters a mapped Class A water body:
- (a) the permitted outfall structure activity shall be carried out within the period recommended by a qualified aquatic environment specialist for the portion of the unmapped water body within a distance of 2 kilometres upstream from the mouth of the unmapped water body;
 - (b) for any other portion of the unmapped water body other than that specified in clause (a):
 - (i) the unmapped water body has the restricted activity period of the nearest mapped Class B or C water body entering the mapped Class A water body, or
 - (ii) if there is no mapped water body entering the mapped Class A water body, has the restricted activity period for the mapped Class B or C water body that is immediately downstream of the mapped Class A water body.

- (4) Where an unmapped water body enters a mapped Class B water body, the restricted activity period is the restricted activity period for the mapped Class B water body that the unmapped water body enters.
- (5) Where an unmapped water body enters a mapped Class C water body:
 - (a) the restricted activity period for the portion of the unmapped water body within a distance of 2 kilometres upstream from the mouth of the unmapped water body, is the restricted activity period for the mapped Class C water body; and
 - (b) for any other portion of the unmapped water body other than that specified in clause (a):
 - (i) where there is no documented evidence of fish presence in the unmapped water body, there is no restricted activity period, or
 - (ii) where there is documented evidence of fish presence in the unmapped water body, the restricted activity period is the restricted activity period of the nearest mapped water body that enters the mapped Class C water body.
- (6) Where an unmapped water body enters a fish bearing water body, whether or not the fish bearing water body appears on a map, the restricted activity period for the unmapped water body:
 - (a) is the same as that specified for the nearest mapped water body entering the fish bearing water body;
 - (b) if there is no mapped water body entering the fish bearing water body, is the same as that specified for the mapped outlet water body of the fish bearing water body; or
 - (c) if there is no mapped outlet water body of the fish bearing water body, is the same as that specified for the nearest mapped water body that is designated as a mapped Class C water body.
- (7) All written specifications prepared by a qualified aquatic environment specialist must:
 - (a) consider all restricted activity periods; and
 - (b) meet the requirements of Schedule 4.

Certification

- 11(1) Where a qualified aquatic environment specialist has prepared specifications in a plan for an outfall structure activity under section 6(1)(b) of this Code of Practice, a qualified aquatic environment specialist must certify in writing that the design of the outfall structure activity meets the requirements of clause (a) in Part 1 of Schedule 2.
- (2) Within one year after the outfall structure activity has been completed, a person who carries out an outfall structure activity must certify in writing that:
- (a) the plan prepared under section 6 was followed in carrying out the outfall structure activity; and
 - (b) the construction of the outfall structure met the requirements of:
 - (i) clause (a), and
 - (ii) clause (b)in Part 1 of Schedule 2.
- (3) The certifications required under subsections (1) and (2) and subsection 6(1)(a) shall be retained until the outfall structure has been removed.

Reporting

- 12(1) (a) A person who carries out an outfall structure activity must immediately after a contravention of this Code of Practice, report to the Director by telephone at (780) 422-4505; and
- (b) a report under clause (a) must contain the details of any contravention of this Code of Practice, including, but not limited to:
- (i) possible adverse effects on the aquatic environment resulting from the contravention, and
 - (ii) initial actions taken to mitigate the contravention.
- (2) A person who carries out an outfall structure activity must, within seven (7) calendar days of a contravention of this Code of Practice, or within another time period specified in writing by the Director, provide to the Director a written report, unless the requirement for the report is waived by the Director.

- (3) The written report under subsection (2) shall contain, as a minimum, all of the following information:
- (a) a description of the contravention;
 - (b) the legal land description of the location of the contravention;
 - (c) name of the water body on which the outfall structure activity was being carried out, if available;
 - (d) an explanation as to why the contravention occurred;
 - (e) a summary of all preventive measures and actions that were taken prior to the contravention;
 - (f) a summary of all measures that were taken to mitigate any adverse effects related to the contravention;
 - (g) a summary of proposed measures to address any remaining adverse effects and potential adverse effects related to the contravention;
 - (h) the names, addresses, phone numbers and responsibilities of all persons carrying out the outfall structure activity at the time that the contravention occurred;
 - (i) proposed preventive measures designed to prevent future contraventions;
 - (j) any information that was maintained or recorded under this Code of Practice, as a result of the contravention; and
 - (k) any other information required by the Director in writing.

Record keeping and information availability

- 13(1) A person who carries out an outfall structure activity must:
- (a) create;
 - (b) compile; and
 - (c) retain
the following records:
 - (i) the names, addresses and phone numbers of the owners of the outfall structure and of the person carrying out the outfall structure activity,
 - (ii) a copy of the plan prepared for the outfall structure pursuant to section 6,
 - (iii) any as-built plans or as-constructed plans, if such as built or as constructed plans were prepared,
 - (iv) the time period over which the carrying out of the outfall structure activity occurred, including:
 - (A) the start and completion dates; and
 - (B) the duration of time each day that the outfall structure activity occurred in the water body,

- (v) photographs or video-recordings taken of the outfall structure before, during and after the carrying out of the outfall structure activity,
 - (vi) where written specifications of a qualified aquatic environment specialist have been included in the plan, the curriculum vitae and relevant experience of the qualified aquatic environment specialist, and
 - (vii) a copy of all certifications referred to in section 11.
- (2) A person who carries out an outfall structure activity must meet the following time requirements for the preparation or compilation of the records specified in subsection (1), unless otherwise specified in writing by the Director:
- (a) a plan under section 6 must be prepared prior to providing notice to the Director under section 3;
 - (b) the curriculum vitae and relevant experience of the qualified aquatic environment specialist must be compiled prior to providing notice to the Director under section 3;
 - (c) for records referred to in paragraphs (i), (iii), (iv) and (v) of subsection (1), the records must be compiled within 3 months of completion of the outfall structure activity or within another time period specified in writing by the Director; and
 - (d) for certifications referred to in paragraph (vii) of subsection (1), records must be compiled within the time periods specified in section 11.
- (3) A person who carries out an outfall structure activity must retain all records referred to in subsection (1) for one year after the completion of the removal of the outfall structure.
- (4) A person who carries out an outfall structure activity must, within the time period specified in writing by the Director or an inspector, provide to the Director or an inspector, any requested information or records retained under subsection (1).

Monitoring of the outfall structure

- 14 Until the outfall structure has been removed, the person who carried out an outfall structure activity must monitor the compliance of an outfall structure with this Code of Practice, in accordance with the plan prepared under section 6.

Code of Practice review and amendment

- 15 The Department may institute a review and amendment of this Code of Practice at any time.

SCHEDULE 1

Notice to the Director (Section 3)

The following information must be contained in a notice for the purposes of section 3:

- (a) type of outfall structure and the nature of the outfall structure activity that is to be undertaken;
- (b) the name, address and phone number of at least one owner of the outfall structure;
- (c) the name and phone number of the contact person for the person carrying out the outfall structure activity;
- (d) a map, diagram, or air photo that shows the outfall structure location in relation to the boundaries of the quarter section that the outfall is located in, including the legal description of the land and the name of the water body (if named) on which the outfall structure is located, and the UTM coordinates, if available, of the outfall structure location;
- (e) the diameter of the outfall structure pipe and the designed discharge capacity of the outfall structure;
- (f) the substances to be discharged from the outfall structure;
- (g) the construction methods and conditions determined in accordance with sections 9 and 10 and Schedule 3 that will be used in carrying out the outfall structure activity, including, where applicable, the rationale for the proposed construction method;
- (h) whether the outfall structure activity to be carried out will incorporate the specifications prepared by a qualified aquatic environment specialist, and if so, the name of the qualified aquatic environment specialist, and consulting company name, if applicable;
- (i) the expected commencement and completion dates of the outfall structure activity, including the estimated duration of time that the outfall structure activity will be carried out in a water body; and
- (j) whether structures or other measures will be required to meet clause (a) in Part 1 of Schedule 2.

SCHEDULE 2

Plans (Section 6)

PART 1 DESIGN AND CONSTRUCTION STANDARDS

The following standards must be met for the purposes of this Code of Practice:

- (a) Upon completion of the outfall structure activity, the:
 - 1. quantity, and
 - 2. productive capacityof the aquatic environment, including, but not limited to fish habitat, at and adjacent to the outfall structure site must be equivalent to or exceed that which existed prior to commencing the outfall structure activity;
- (b) Upon completion of the outfall structure activity, the:
 - 1. hydraulic,
 - 2. hydrologic, and
 - 3. hydrogeologicalcharacteristics of the water body must be restored to a condition that is equivalent to the condition that existed prior to commencing the outfall structure activity;
- (c) The outfall structure activity must be carried out in a manner so that none of the following occurs:
 - 1. harm to fish or fish eggs,
 - 2. destruction of fish or fish eggs,
 - 3. harmful alteration, disruption or destruction of fish habitat;
- (d) the flow of water in the water body past the outfall structure site must be maintained at the outfall structure site at all times;
- (e) measures must be implemented to minimize the duration and amount of disturbance of the bed and banks of the water body;
- (f) no substance or material that may have an adverse effect on the aquatic environment shall be deposited into the water body;
- (g) the outfall structure activity shall not result in the transfer to the outfall structure site of biota that is not indigenous to the environment at the outfall structure site;
- (h) the person carrying out the outfall structure activity must take all measures possible to control:
 - 1. erosion of, or
 - 2. sedimentation intothe water body;

- (i) debris disposal, cleanup and initial stabilization must be carried out as part of the outfall structure activity; and
- (j) all areas on the outfall structure site:
 - 1. that have been disturbed by the outfall structure activity, and
 - 2. that slope to the water bodymust be stabilized within one full growing season after the completion of the outfall structure activity.

**PART 2
REQUIREMENTS FOR INFORMATION AND WRITTEN
SPECIFICATIONS FOR PLANS OF OUTFALL STRUCTURE
ACTIVITY**

Written specifications of a professional engineer required under section 6(1) must:

- (a) be prepared, signed and stamped by a professional engineer;
- (b) incorporate any written specifications prepared by a qualified aquatic environment specialist for the outfall structure activity;
- (c) include the certification by that professional engineer that the design specifications meet the design and construction standards in Schedule 2 of this Code of Practice; and
- (d) include the design specifications of the outfall structure activity and other information related to the outfall structure activity, as follows:
 - (i) information on a page which is a minimum size of 21 centimetres by 27 centimetres, a minimum scale of 1:15000 and that includes:
 - (A) a map, diagram, or air photo that shows the location of the outfall structure activity in relation to the boundaries of the quarter section that the outfall structure will be located in, the legal description of the land, and the UTM coordinates, if available, on which the outfall structure is located;
 - (B) the name of the water body that the outfall structure is or will be located on, if named;
 - (C) whether the outfall structure will carry storm drainage or wastewater;
 - (D) the location of the pipe connecting to the outfall structure shown through the width of the active floodplain of the water body, including pipe diameter and outfall structure discharge capacity; and

- (E) all surveyed and unsurveyed profile and cross-sectional drawings required for the design;
- (ii) any hydraulic, hydrologic, or hydrogeologic analysis performed for the design of the outfall structure, and
- (iii) a description of any other specifications for the outfall structure that were not provided on the plan or that are required in order to comply with this Code of Practice.

SCHEDULE 3

Construction Conditions (Section 9)

PART 1 CLASS A WATER BODIES

Where a map or section 7 of this Code of Practice designates the water body in which the proposed outfall structure is or will be located as a Class A water body, the construction methods and conditions specified in section 9 and 10 of this Code of Practice must be met.

PART 2 GENERAL CONDITIONS FOR OUTFALL STRUCTURE ACTIVITIES IN CLASS B, C AND D WATER BODIES

- (a) If a water body is flowing at the time of the outfall structure activity, the water body channel must not be constricted by more than two-thirds ($2/3$) of its width during the carrying out of an outfall structure activity;
- (b) Where any excavation of the bank of a water body occurs:
 - (i) all material excavated from the bed or banks of the water body must be removed and stored at a location out of the water body until the materials are removed from the location or backfilled into the water body,
 - (ii) where the width of the outfall structure site measured between the banks of the water body is equal to or greater than 15 metres, and it is necessary to stockpile the material excavated from the bed in the water body, the material must be stockpiled in a manner that avoids areas of highest water velocity, and does not windrow the material across the channel perpendicular to the flow of water,
- (c) Where isolating the location of a works:
 - (i) the isolation must be carried out in a manner that isolates the location of the outfall structure activity from the flowing water in the water body, and eliminates the flow of surface water through the construction site,

- (ii) any berms, cofferdams or other isolation structures used in an outfall structure activity within a flowing watercourse are to be:
 - (A) constructed of non-erodible material or protected from erosion for the entire period of time the berm, coffer dam or isolation structure will be in place; and
 - (B) removed completely upon completion of the outfall structure activity,
- (iii) in cases where the entire flow of water of a water body is diverted around the outfall structure site, it must be returned to the water body downstream of the outfall structure site,
- (iv) where ice is present on a water body, any diverted water must be returned to the water body downstream of the outfall structure site, under the ice if ice is present,
- (v) silt fences may be used in situations where there is low flow in a water body, where appropriate, to isolate the construction area from the water body,
- (vi) during the carrying out of the outfall structure activity, any fish that are found within the isolated portion of the outfall structure site are to be removed, without harm to or destruction of the fish, to an area of the water body immediately adjacent to the watercourse crossing, outside the isolated portion of the outfall structure site,
- (vii) during a restricted activity period, when fish are spawning or migrating, an isolation method that blocks the entire width of a water body must not be in place for longer than 3 consecutive days, unless upstream and downstream fish migration is accommodated,
- (viii) during a period of time outside a restricted activity period, an isolation method must not be in place for longer than 14 consecutive days unless upstream and downstream fish migration is accommodated,
- (ix) any water entering an intake of a bypass pumping system must pass through a screen with openings that are no larger than 2.54 millimetres and at a velocity that does not result in the entrainment and entrapment of fish or fish fry,

- (x) any accumulations of silt and sediment within the isolation area resulting from the works in the isolation area must be removed to an upland site prior to restoration of water flow through the isolation site, and
- (xi) any water removed from an isolation area, must be discharged in a manner that ensures suspended sediments are not introduced into a water body.

PART 3
CLASS B WATER BODIES – ISOLATION METHOD

Where a map or section 7 of this Code of Practice designates the water body in which the proposed outfall structure is or will be located as a Class B water body, in addition to the requirements under section 9 and 10 of this Code of Practice:

- (a) where the isolation method is used, the following requirements must be met:
 - (i) the water diverted around the outfall structure site must be returned to the water body downstream of the outfall structure site during the outfall structure activity,
 - (ii) where ice is present on the water body, the diverted water must be returned to the water body downstream of the outfall structure site, under the ice during the outfall structure activity,
 - (iii) backfill around the outfall structure must consist solely of material of equal or better quality compared to the material that was removed,
 - (iv) all material excavated from the bed or banks of the water body must be removed and stored at a location out of the water body until the material is used to backfill, in accordance with clause (a) of Part 5 of Schedule 3,
 - (v) during the carrying out of the outfall structure activity, any fish that are found within the isolated portion of the water body shall be removed, without harm or destruction, to an area of the water body outside the construction site that is located immediately adjacent to the isolated portion,
 - (vi) during those periods of time within a restricted activity period, when fish are spawning or migrating, an isolation method must not be used for longer than three consecutive days, unless upstream and downstream fish migration is accommodated,

- (vii) during any period of time outside a restricted activity period, an isolation method must not be in place for longer than 14 consecutive days unless upstream and downstream fish migration is accommodated,
- (viii) any water entering an intake of an isolation bypass pumping system must pass through a screen with openings that are no larger than 2.54 millimetres and at a velocity that does not result in the entrainment and entrapment of fish or fish fry, and
- (ix) any accumulations of silt and sediment within the isolation area in the excavation resulting from the outfall structure activity, must be removed to a location where the materials will not enter a water body.

PART 4
CLASS C WATER BODIES – ISOLATION METHOD

Where a map or section 7 of this Code of Practice designates the water body in which the proposed outfall structure is or will be located as a Class C water body, in addition to the requirements under section 9 and 10 of this Code of Practice, the following requirements must be met:

- (a) where the isolation method is used:
 - (i) the isolation method must be carried out in a manner that isolates the instream construction site and eliminates the flow of surface water through the area of the excavation or will be excavated in the water body,
 - (ii) the water diverted around the outfall site must be returned to the water body downstream of the outfall site,
 - (iii) where ice is present on the water body, the diverted water must be returned to the water body downstream of the outfall site, under the ice,
 - (iv) backfill around the structure must consist solely of material of equal or better quality compared to the material that was removed,
 - (v) during the carrying out of the outfall structure activity, any fish that are found within the isolated portion of the outfall site must be removed, without harm or destruction, to an area of the water body outside the isolated portion that is located immediately adjacent to the isolated portion,
 - (vi) during those periods of time within a restricted activity period, when fish are spawning or migrating, an isolation method must not be used for longer than three

- consecutive days, unless upstream and downstream fish migration is accommodated,
- (vii) any water entering an intake of a bypass pumping system must pass through a screen with openings that are no larger than 2.54 millimetres and at a velocity that does not result in the entrainment and entrapment of fish or fish fry,
 - (viii) any accumulations of silt and sediment within the isolation area resulting from the outfall structure activity must be removed to a location where the materials will not enter a water body,
 - (ix) all material excavated from the bed or banks of the water body must be removed and stored at a location out of the water body until the materials is used to backfill, and
 - (x) all special conditions on each applicable Water Act Code of Practice Management Area map must be met.

PART 5

CLASS D WATER BODIES (Uncoded water bodies)

Where a map or section 7 of this Code of Practice designates a water body in which the proposed outfall structure is or will be located as a Class D water body, and where a method other than the isolation method is used, in addition to section 9 and 10 of this Code of Practice, the following requirements must be met:

- (a) the backfill around the structure must consist solely of material of equal or better quality compared to the material that was removed; and
- (b) all material excavated from the bed or banks of the water body must be removed and stored at a location out of the water body until the materials is used to backfill.

SCHEDULE 4

Qualified Aquatic Environment Specialist's Written Specifications

- 1(1) The written specifications of a qualified aquatic environment specialist referred to under this Code of Practice must include:
 - (a) specifications on any measures required to meet the requirements of clause (a) in Part 1 of Schedule 2 of this Code of Practice;
 - (b) a copy of information gathered and assessments made by the qualified aquatic environment specialist regarding the aquatic environment of the water body on which the outfall structure activity will be carried out, including fish populations and habitat, in preparing the specifications, including but not limited to:
 - (i) a list of all existing information, published and unpublished reports reviewed,
 - (ii) any new information gathered through field assessments, and
 - (iii) any reports prepared by the qualified aquatic environment specialist;
 - (c) the outfall location, including its legal description, and its UTM coordinates, where known;
 - (d) a summary of physical and biological data pertaining to the water body at the outfall structure location including:
 - (i) all fish species that are present or could be present at any time during the year,
 - (ii) aquatic species of special concern, including rare, endangered, threatened or vulnerable species,
 - (iii) a description of existing aquatic and riparian fish habitat,
 - (iv) a description of the hydrological characteristics of the water body, and
 - (v) any other relevant information regarding the aquatic environment, including fish populations and habitat;
 - (e) a description of any field assessment study sites, the methods used during field assessments and dates and times of field assessments;
 - (f) a description of the anticipated effects of the outfall structure activity on the water body and aquatic environment; and

- (g) the name and signature of the qualified aquatic environment specialist and of the persons responsible for the field assessments.
- (2) A field assessment for outfall structures must be conducted:
- (a) where in the opinion of the qualified aquatic environment specialist, the required information does not exist to prepare the written specifications in order to meet the requirements of clause (a) in Part 1 of Schedule 2, including where:
 - (i) an alternative construction method to that specified in section 9(1) of this Code of Practice is to be used, and
 - (ii) when an outfall structure activity occurs or is anticipated to occur in a water body during a period of fish spawning, egg incubation, fry emergence and early fry development; and
 - (b) when repair or maintenance of an existing outfall structure is carried out in a Class A water body.

SCHEDULE 5

Water Act Code of Practice Management Area Maps

1. Peace River Management Area – dated April 1, 2000 [#]
2. Grande Prairie Management Area – dated April 1, 2000 [#]
3. High Prairie Management Area – dated April 1, 2000 [#]
4. Edson Management Area – dated April 1, 2000 [#]
5. Stony Plain Management Area – dated April 1, 2000 [#]
6. Pincher Creek Management Area – dated April 1, 2000 [#]
7. Lethbridge Management Area – dated April 1, 2000 [#]
8. Medicine Hat Management Area – dated April 1, 2000 [#]
9. Fort McMurray Management Area – dated April 1, 2000 [#]
10. Lac La Biche Management Area – dated April 1, 2000 [#]
11. St. Paul Management Area – dated April 1, 2000 [#]
12. Camrose Management Area – dated April 1, 2000 [#]
13. Red Deer Management Area – dated April 1, 2000 [#]
14. Rocky Mountain House Management Area – dated April 1, 2000 [#]
15. Calgary Management Area – dated April 1, 2000 [#]
16. Canmore Management Area – dated April 1, 2000 [#]
17. Brooks Management Area – dated April 1, 2000 [#]

[#] Amended 2006/12/01 and in force 2007/02/15 – except for items 1, 2, 5, 8, 13, 17, this amendment is also captured in part by s 7(5)