

Constructed Ditch FACTSHEET



BRITISH
COLUMBIA

Ministry of Agriculture, Food and Fisheries

Drainage Management Guide - No. 3 in series

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AGENCY CONTACT REQUIREMENTS For Constructed Ditch Maintenance

The intent of the Drainage Management Guide is to provide advice on conducting watercourse maintenance activities in as sensitive manner as possible to prevent harm to fisheries resources while ensuring that agricultural drainage needs are met. The guidelines reduce the processing of government approvals through the provision of Best Management Practices for specific lower risk activities on constructed ditches.

This factsheet provides a table outlining low risk activities that may be undertaken with reduced contact of agencies. Contact with agencies is required for some constructed ditch maintenance works. This depends on the condition of the ditch (dry or wet) and

the time of year the work is to be done. Figure 1 below and Table 1 provide guidance on the contact requirements for proceeding with maintenance works on constructed ditches.

The Timing Windows are outlined in *Fishery Timing Windows for Maintenance Work*, Factsheet No. 4 in this series. Every effort should be taken to conduct works within the timing windows. All works must be done using the Best Management Practices outlined in the other factsheets in this series. Direction on legislation and contact requirements for provincial and federal agencies for high risk activities is outlined in the front portion of the guide.

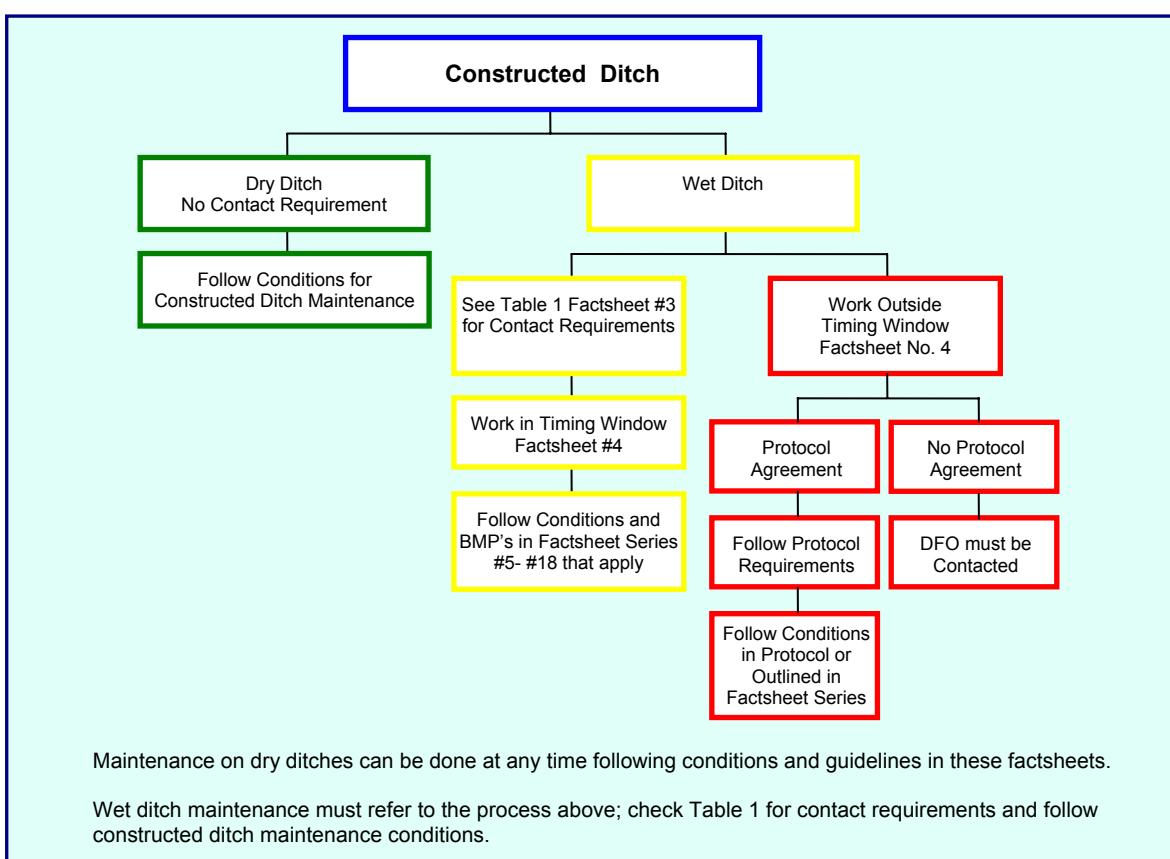


Figure 1 Constructed Ditch Contact Requirements

Dry Ditch Maintenance

Maintenance work on dry constructed ditches does not require contact with agencies providing that the ditch remains dry while the work is being done and the best management practices outlined in these factsheets (#5-#18) are adhered to. Whenever possible it is preferable to conduct maintenance work during the summer.

If field access is too difficult during the active cropping season (generally the summer months), maintenance work on dry constructed ditches can be delayed providing that the ditch is temporarily blocked when dry to prevent fish access.

A ditch barrier such as a steel plate, constructed timber barrier or a temporary berm may be used. The barrier may only be put in place if the ditch is dry and may only remain in place until the works are complete. The barrier must be removed no later than November 1st. Blocking the ditch eliminates the requirement for completing a fish salvage in a constructed ditch where there may be seasonal fish use.



If a storm should occur while maintenance work is being done, the works should be suspended. No silt or sediments are to migrate downstream into fish-bearing waters. This includes both during and after completion of the maintenance works.

Mowing of grasses and vegetation above the waterline that may restrict flows during full ditch conditions can be done without contacting agencies.



Wet Ditch Maintenance

Some specific low risk maintenance activities may be undertaken on a wet constructed ditch. Refer to Table 1 for the list of maintenance or other activities that can be completed without notification to agencies. On a wet constructed ditch all works must be undertaken during the timing window. All the best management practices, including but not limited to, fish salvage, isolation, sediment and erosion control must be followed.

Where works on a wet constructed ditch cannot be completed during the Timing Window, the works inherently pose considerable risk of harm to fish and fish habitat. Contact with Fisheries and Oceans Canada is then required.

If a wet constructed ditch is dry at some time of the year, it may be blocked to prevent fish access and then treated as a dry constructed ditch, providing that the barrier only remain in place until works are complete and no later than November 1st of any year.

For works that list DMF as the contact method in Table 1, send the Ditch Maintenance Form (DMF) located at the back of this factsheet to the appropriate DFO office. The DMF must be received a minimum of 14



days prior to undertaking the works. DMF's can be delivered by hand delivery, fax or mail. Factsheet 19 provides contact information.

If work is planned to be done outside the timing window or the works require authorization from DFO, it is recommended to submit the request prior to May 1st.

For a description of what information should be submitted when requesting an Authorization see the information on DFO Authorization later in this factsheet.

Works approved by a license under the *BC Water Act*, such as the maintenance of pump intakes, screens and trash racks, are excluded from the approval and contact requirements.

Prior to undertaking any work, it must be determined whether or not contact with an agency is necessary. Table 1 provides a brief listing of maintenance and other activities, as well as direction, on whether or not contact is required. Refer also to Factsheet No. 1 *Federal Fisheries Act* and Factsheet No. 19 *Agency Contacts for Environmental Issues*.

Table 1

Contact Requirements for Maintenance Work in a Wet Constructed Ditch

Activity	Maintenance Work List If the maintenance work is not described below, contact DFO. DMF = Ditch Maintenance Form Work is done during the Timing Window Follow Best Management Practices	No Agency Contact	DMF	DFO Authorization	BMP Factsheet Reference
Drain Tiles	Installation or cleaning of drain tiles	X			#5
Vegetation Maintenance	Localized hand pruning of riparian vegetation above the high water mark (does not include whole tree removal)	X			#5
	Localized hand cutting of aquatic vegetation below the waterline	X			#5
	Machine mowing of emergent aquatic vegetation above the current waterline of the ditch.	< 100m X	> 100m X		#5
	Hand <i>removal</i> of emergent aquatic vegetation from the bottom of the ditch (i.e. emergent aquatic vegetation along the edges of the ditch is not disturbed).	< 100m X	> 100m X		#5
	Machine mowing of vegetation in the ditch bottom below the waterline			X	#5
Vegetation Removal	Machine removal of riparian vegetation on the north and east side of a constructed ditch (wet or dry) only for the purpose of constructing an access for channel maintenance. (< 10 m)		X		#5
	Machine removal of riparian vegetation on the south and west side of a constructed ditch (wet or dry).			X	#5
	Large scale removal of riparian vegetation on constructed ditches (i.e. trees and riparian vegetation beyond which is outlined in the conditions above).			X	#5
Fencing	Installation, repair or maintenance of fences	X			
Drainage Works	Installation, maintenance or cleanout of sediment traps which do not require the construction of any structures within the ditch (e.g. weirs, dams, trash racks, etc.)		X		#9
	Construction and hookup of new ditch to channelized or natural stream			X	#6
	Construction and hookup of new ditch to another ditch		X		#6
Ditch Maintenance	Localized removal of blockages to flow less than 5 meters in length (e.g. debris dams)		X		#5
	Annual dredging or cleaning of the ditch bottom		< 50 m X	> 50 m X	#5
	Constructed Ditch diversion, relocation or infilling			X	#7
Access Crossings	Construction of a clear span bridge crossing where no works will take place in ditch or replacement of bridge decking.	X			#14
	Replacement of an access road culvert with a culvert less than 12 m.	X			#15
	Replacement of an access road culvert with a culvert greater than 12 m		X		#15
	New culvert installation that will not impact native trees and shrubs.		X		#15
Bank Stabilization	Bank stabilization by planting vegetation and seeding with a native grass mixture		X		#10
	Bank stabilization or repair through bio-engineering or other techniques			X	#12 #13
Control	Construction of a livestock watering area or crossing on a constructed ditch	X			
Structures	Maintenance and/or replacement of ditch structures where the ditch can be isolated	X			#5
	Construction of new structures within the ditch (e.g. weirs, trash racks, irrigation gates) or maintenance or replacement of structure where the ditch cannot be isolated		X		#5
	Construction or maintenance of a pipeline crossing	X			
Maintenance of Licensed Works	Maintenance of existing screens, trash racks and irrigation diversions	X			

Contact with LWBC and WLAP is not required for work on constructed ditches. Contact with DFO is made by using the attached Ditch Maintenance Form or obtaining an authorization. See Drainage Management Guide for the DFO Project review Information Requirements Form.

Agency Contact Requirements

No Agency Contact

Applies to:

- Dry Constructed Ditches
- Some Works in Wet Constructed Ditches

Works in dry constructed ditches can be done with no agency contact. Certain works in wet constructed ditches may be done without contacting DFO as outlined in Table 1. These works must be conducted

during the appropriate Timing Window. See *Fishery Timing Windows for Maintenance Work in Constructed Ditches*, Factsheet No. 4 in this series. When conducting the work, follow the conditions, best management practices and guidelines as outlined in the appropriate factsheet in this series.

DFO Contact Required – Use Ditch Maintenance Form

Applies to: - Wet Constructed Ditches

A Ditch Maintenance Form (DMF) has been developed to simplify agency contact for some works in wet constructed ditches. For works identified in Table 1 as requiring a DMF, the proponent must submit the DMF (attached to back of this factsheet) to DFO so that it is received by DFO a minimum of **14 days** prior to the commencement of works.

DFO staff may have concerns depending on the potential for the proposed works to impact fish or fish habitat. If DFO has concerns the proponent will be

contacted and advised of how to proceed. If the proponent has not been contacted by DFO after fourteen days, the individual can begin the proposed works during the approved timing window and in accordance with the appropriate conditions as outlined in this factsheet series.

The completed DMF can be faxed, hand delivered or mailed (allow for additional time due to posting) to the local DFO office. Contact Information is shown in the list at the back of this factsheet.

DFO Authorization

Applies to:

- Constructed Ditches outside the timing window
- Constructed Ditches where work will result in a HADD

Authorization under the Federal *Fisheries Act* is necessary if the work will result in the harmful alteration, disruption or destruction (HADD) of fish habitat, and may be required for works in a constructed ditch, channelized or natural stream. Examples of HADDS include:

- Loss of riparian vegetation. Fish habitat features provided by riparian vegetation include insect drop, contribution of large woody debris, and shading to stabilize water temperature.
- Siltation that can smother fish spawning gravels and benthic invertebrates that provide a food source for fish.
- Removal of instream vegetation that can result in loss of fish shelter and food supply.
- Infilling of stream channel with debris causing a loss of living space and food supply.

An Authorization is a signed agreement between the proponent and DFO. It allows for specific impacts to fish habitat and outlines mitigation and compensation requirements. The decision of whether or not an

Authorization will be issued is made by a DFO Habitat Biologist or Technician.

How to obtain an Authorization:

To obtain an Authorization from DFO, the proponent must submit a clearly written proposal detailing the type of work to be done, justification for the proposed works, equipment to be used, extent of fish use and habitat type, mitigation measures, proposed habitat compensation and timing of work. This information must be submitted to DFO well in advance of the work being done. Applications should be submitted by May 1st of any calendar year, in order to ensure adequate time for processing of the application prior to the Timing Window. In order for DFO to determine whether or not an approval will be granted, a site visit to assess the proposed works may be required. Official correspondence may be issued as a “letter of advice” or an Authorization.

For long term plans, letters of advice and/or Authorizations may be valid for a term of longer than one year, thereby foregoing the necessity to apply on an annual basis.

In situations where the habitat impacts of the proposed works will be too great, DFO may choose not to issue an authorization for the proposed works.

Protocol Agreements

Applies to:

- Constructed Ditches
- ARDSA Channels

A Protocol Agreement is a standing legally binding agreement between DFO, WLAP and the farm, municipality or other corporate entity. It permits ongoing drainage maintenance works to be undertaken over a specified time period. Protocol Agreements specify the terms and conditions under which the drainage maintenance works may be undertaken and may set forth mitigation or compensation requirements within the context of a watershed or watershed sub-basin.

The objective of a Protocol Agreement is to allow for area-specific needs for drainage maintenance to be met while ensuring protection of fish and fish habitat. Protocol Agreements may be based on comprehensive long-term plans having schedules for ongoing maintenance works on an annual to 10-year basis. Protocol Agreements may specify work locations, types of maintenance works, quantities of works, work methodologies, timing windows or other specific maintenance requirements.

Protocol Agreements may recognize area specific needs such as:

- the necessity for conducting works after the fall harvest of crops has been completed;
- municipal workload volumes, equipment and/ or machine operator availability, or other related constraints;
- specific channels which are primarily used for irrigation and which may require maintenance works after water levels are lowered;
- flood protection
- emergency work protocols
- the protection of fish and fish habitat

A Protocol Agreement that has been established with DFO and WLAP will supercede the Timing Window conditions and guidelines, and contact requirements for constructed ditches as outlined here in this factsheet.

A Drainage Management Plan prepared under the Environmental Farm Planning Program may be able to form a basis for a Protocol Agreement between a farm and agencies.

Conducting Work Outside Established Timing Windows

A farmer cannot do work in wet constructed ditches outside the timing windows indicated in Factsheet 4 without contacting DFO.

However, if a municipality has obtained approval to conduct maintenance works in a downstream watercourse adjacent to your constructed ditches outside the normal timing window, the farm can also do maintenance works at the same time providing that the guidelines outlined in this guide are followed.

Ditch Maintenance Form

(for Works in a Wet Constructed Ditch)

APPLICANT INFORMATION

Name: _____
Address: _____

Telephone: _____
Fax: _____

LOCATION OF WORKS (be specific, include map if available)

Ditch Name (if available) _____
Length of Maintenance Works: _____ m Habitat Classification (if available) _____
Fish Presence _____ Unknown _____

ANTICIPATED WORK DATES (NO LESS THAN 14 DAYS NOTICE IS REQUIRED)

DESCRIPTION OF WORKS CONDUCTED IN A WET CONSTRUCTED DITCH DURING JUNE 15 - SEPT. 30 (circle appropriate works).

- Machine mowing of emergent aquatic vegetation above the current waterline of the ditch greater than 100 meters per year.
 - Hand removal of aquatic vegetation from the bottom of the ditch greater than 100 meters per year..
 - Machine removal of riparian vegetation on the north and east side of a constructed ditch (wet or dry) only for the purpose of constructing an access for channel maintenance (10m)
 - Installation, maintenance or cleanout of sediment traps which do not require the construction of any structures within the ditch (e.g. weirs, dams, trash racks, etc.)
 - Construction and hookup of new ditch to another ditch
 - Localized removal of blockages to flow less than 5 meters in length (e.g. debris dams)
 - Dredging or cleaning the entire bottom along a ditch length < 50 m / yr
 - Replacement of an access road culvert with a culvert > 12 m in length.
 - New culvert installation that will not impact native trees and shrubs.
 - Bank stabilization or repair by bio-engineering or other techniques.
 - Construction of new structures within the ditch (e.g. weirs, trash racks, irrigation gates) where ditch cannot be isolated.
 - Other works: _____
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- ***PLEASE CHECK TABLE 1 FOR THOSE WORKS IN A WET CONSTRUCTED DITCH WHICH DO NOT REQUIRE SUBMISSION OF DITCH MAINTENANCE FORM.***
 - ***ANY OTHER WORKS WILL REQUIRE DIRECT CONTACT WITH DFO PRIOR TO STARTING WORKS***
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SIGNATURE:

I acknowledge that I have read the guidelines and conditions attached:

Date: _____

Fax to DFO – see contact list in Factsheet 19

Signature: _____