

6 APPENDICES

- APPENDIX 1** **Biodiversity Resources for Farms and Ranches**
- APPENDIX 2** **Agency Contacts for Biodiversity**
- APPENDIX 3** **Legislation**
- APPENDIX 4** **Other Sources of Information**

APPENDIX 1 - BIODIVERSITY RESOURCES FOR FARMS AND RANCHES

ADDITIONAL SOURCES OF BMPs AND OTHER RELATED INFORMATION		
Resource	Description	Where to Find
BC Environmental Farm Plan Reference Guide	Variety of BMPs for biodiversity and other related farm management topics. Includes related legislation	BC Agriculture Council http://www.ardcorp.ca/index.php?page_id=40/
Guidelines and Best Management Practices	Web page with extensive links to different BMP documents	Ministry of Environment, Environmental Stewardship Division www.env.gov.bc.ca/wld/BMP/bmpintro.html
Ducks Unlimited Canada Beneficial Management Practices	List of BMPs related to different aspects of agricultural management, including biodiversity	Ducks Unlimited Canada www.ducks.ca
Biodiversity Conservation: An Organic Farmer's Guide	Extensive list of different activities suitable for organic as well as non-organic operations	Wild Farm Alliance www.wildfarmalliance.org/ Contact: 831-761-8408 or info@wildfarmalliance.org
Riparian Areas and Grazing Management	Activities to protect and enhance biodiversity around wetlands, streams, rivers, and lakes	Cows and Fish Program www.cowsandfish.org/pdfs/greenzone3rd.pdf
Rangelands	Rangeland information	Beef Infonet www.vido.org/beefinfonet/
Rangeland Handbook for Livestock and Wildlife	Comprehensive information about rangeland ecosystems, vegetation assessment, management, planning	British Columbia Cattlemen's Association www.cattlemen.bc.ca/default.htm
Range Fact Sheets	Grazing management, Riparian grazing management, Fencing grazing lands, Weed management, Livestock watering	Ministry of Agriculture and Lands www.agf.gov.bc.ca/range/factsheets.htm
Farming for Bees – Guidelines for Providing Native Bee Habitat on Farms	Outlines ways to protect and enhance habitat for native crop pollinators in the farm landscape. Includes advice on simple changes that can be made in farm management for the benefit of native bees, and information on how to enhance or provide important habitat features, such as nest sites and forage	The Xerces Society www.xerces.org/guidelines/
Building Soils for Better Crops, 2 nd edition	Contains detailed information about soil structure, the management practices that affect soils, and information on how to interpret soil test results	Sustainable Agriculture Research and Education www.sare.org/publications/bsbc/bsbc.pdf

ADDITIONAL SOURCES OF BMPs AND OTHER RELATED INFORMATION

Resource	Description	Where to Find
Manage Insects on Your Farm: A Guide to Ecological Strategies	Highlights ecological strategies that improve a farm's natural defences and encourage beneficial insects to attack the worst pests. Includes principles of ecologically-based pest management and the strategies to address insect problems	Sustainable Agriculture Research and Education www.sare.org/publications/insect/insect.pdf
Managing Cover Crops Profitably, 3 rd edition	Provides information on how to build cover crops into any farming operation. Includes chapters on brassicas and mustards, farm profiles, and the use of cover crops in conservation tillage systems. Appendices include seed sources and a list cover crop experts	Sustainable Agriculture Research and Education www.sare.org/publications/covercrops/covercrops.pdf
Steel in the Field: A Farmer's Guide to Weed Management Tools	Shows how today's implements and techniques can control weeds while reducing or eliminating herbicides. Includes information on cutting weed-control costs by using improved cultivation tools, cover crops and new cropping rotations	Sustainable Agriculture Research and Education www.sare.org/publications/steel/steel.pdf

APPENDIX 2 - AGENCY CONTACTS FOR BIODIVERSITY

The following list provides a starting point for contacting agencies to obtain environmental information. Use the table below to determine which agency to contact for the type of information you need. The agencies and their contact information are listed alphabetically by federal and provincial government. However, agency information changes frequently. If you have difficulty contacting any of the offices listed below, please refer to the agency websites.

TYPES OF INFORMATION AVAILABLE FROM AGENCIES	
DESIRED INFORMATION	AVAILABLE FROM (AGENCY SOURCE)
Agroforestry	BC Ministry of Agriculture and Lands Prairie Farm Rehabilitation Administration
Air (air quality)	BC Ministry of Environment Regional District (Metro Vancouver only)
Biodiversity – species at risk	BC Ministry of Environment
Buffers	BC Ministry of Agriculture and Lands BC Ministry of Environment Fisheries and Oceans Canada
Burning – venting index	Environment Canada BC Ministry of Environment
Composting	BC Ministry of Environment Regional Districts
Dams (water control studies)	BC Ministry of Agriculture and Lands
Drainage (installation and maintenance) – draining wetlands	BC Ministry of Environment Fisheries and Oceans Canada Environment Canada – Canadian Wildlife Service
Drinking water	BC Ministry of Environment Regional Health Authority
Fertilizers	Canadian Food Inspection Agency
Fish	BC Ministry of Environment Fisheries and Oceans Canada
Groundwater (location, vulnerability and maintenance)	BC Ministry of Environment
Habitat – Terrestrial	BC Ministry of Environment Environment Canada – Canadian Wildlife Service
– Aquatic	BC Ministry of Environment Fisheries and Oceans Canada

TYPES OF INFORMATION AVAILABLE FROM AGENCIES

DESIRED INFORMATION	AVAILABLE FROM (AGENCY SOURCE)
Land use	Regional District and local municipal governments Agricultural Land Commission
Manure management	BC Ministry of Environment BC Ministry of Agriculture and Lands
Odour	BC Ministry of Environment Regional District
Pesticide	BC Ministry of Environment Environment Canada
Septic system	Regional Health Authority
Siting of buildings	Regional District and local municipal governments
Soils	BC Ministry of Environment BC Ministry of Energy, Mines and Petroleum Resources BC Ministry of Agriculture and Lands
Stormwater	Regional District and local municipal governments
Stream work (working in or about a stream, riparian areas)	BC Ministry of Environment Fisheries and Oceans Canada
Surface water (water course classifications, water quality objectives)	BC Ministry of Environment Fisheries and Oceans Canada Environment Canada
Waste Management – General Farm	BC Ministry of Environment
– Mortality	BC Ministry of Environment Canadian Food Inspection Agency
– No Agriculture	BC Ministry of Environment
Water licences	BC Ministry of Environment
Weeds	Regional District
Woodwaste	BC Ministry of Environment
Zoning, Land use	Regional District and local municipal governments Agricultural Land Commission

FEDERAL AGENCIES

AGRICULTURE AND AGRI-FOOD CANADA

Website: <http://www.agr.gc.ca>

BC Regional Office
4th Floor, Suite 420
4321 Still Creek
Burnaby, BC V5C 6S7
Tel: (604) 666-6344
Fax: (604) 666-7235

Kamloops Range Research Unit
3015 Ord Road
Kamloops, BC V2B 8A9
Tel: (250) 554-5200
Fax: (250) 554-5229

Pacific Agri-Food Research Centre
4200 Highway No. 97, PO Box 5000
Summerland, BC V0H 1Z0
Tel: (250) 494-7711
Fax: (250) 494-0755

Pacific Agri-Food Research Centre
6947 Highway No. 7, PO Box 1000
Agassiz, BC V0M 1A0
Tel: (604) 796-2221
Fax: (604) 796-0359

PRAIRIE FARM REHABILITATION ADMINISTRATION

Website: http://www.agr.gc.ca/pfra/main_e.htm

Prairie Farm Rehabilitation Administration
3015 Ord Road
Kamloops, BC V2B 8A9
Tel: (250) 554-5200
Fax: (250) 554-5229

Prairie Farm Rehabilitation Administration
Suite 104 - 1005 - 104th Avenue
Dawson Creek, BC V1G 2H9
Tel: (250) 782-3116
Fax: (250) 782-8156

CANADIAN FOOD INSPECTION AGENCY

Website: <http://www.inspection.gc.ca>

Canadian Food Inspection Agency
4th Floor, Suite 400
4321 Still Creek Drive
Burnaby, BC V5C 6S7
Tel: (604) 666-6513
Fax: (604) 666-1261

ENVIRONMENT CANADA

Website: <http://www.ec.gc.ca/>

Environment Canada
Pacific and Yukon Region
201 – 401 Burrard Street
Vancouver, BC V6C 3S5
Tel: (604) 664-9100
Fax: (604) 713-9517

Environment Canada – Canadian Wildlife Service
Pacific Wildlife Research Centre
5421 Robertson Rd.
Delta, BC V4K 3N2
Tel: (604) 940-4700
Fax: (604) 946-7022

FISHERIES AND OCEANS CANADA

Website: <http://www.dfo-mpo.gc.ca/index.htm>

Lower Mainland

**Fisheries and Oceans Canada
Vancouver (Regional HQ)**
Suite 200 – 401 Burrard Street
Vancouver, BC V6C 3S4
Tel: (604) 666-0384
Fax: (604)-666-1847

Fisheries and Oceans Canada
32873 London Ave.
Mission, BC V2V 6M7
Tel: (604) 814-1055
Fax: (604) 814-1064

**Fisheries and Oceans Canada
Lower Fraser Area Office**
Unit 3 – 100 Annacis Parkway
Delta, BC V3M 6A2
Tel: (604) 666-8266
Fax: (604) 666-7112

Fisheries and Oceans Canada
327-44500 South Sumas Road
Chilliwack, BC V2R 5M3
Tel: (604) 824-3300
Fax: (604) 858-0002

Fisheries and Oceans Canada
5550 – 268th St.
Langley, BC V4W 3X4
Tel: (604) 607-4150
Fax: (604) 607-4199

Fisheries and Oceans Canada
1120 Hunter Place, Box 2360
Squamish, BC V0N 3G0
Tel: (604) 892-3230
Fax: (604) 892-2378

Fisheries and Oceans Canada
12551 No. 1 Road
Richmond, BC V1T 1T7
Tel: (604) 664-9250
Fax: (604) 664-9255

Vancouver Island

Fisheries and Oceans Canada
315 - 940 Alder Street
Campbell River, BC V9W 2P8
Tel: (250) 850-5701
Fax: (250) 286-5852

Fisheries and Oceans Canada
457 East Stanford Avenue
Parksville, BC V9P 1V7
Tel: (250) 954-2675
Fax: (250) 248-6776

Fisheries and Oceans Canada
148 Port Augusta Street
Comox, BC V9M 3N6
Tel: (250) 339-2031
Fax: (250) 339-4612

Fisheries and Oceans Canada
Box 10, 12841 Madeira Park Road
Madeira Park, BC V0N 2H0
Tel: (604) 883-2313
Fax: (604) 883-2152

Fisheries and Oceans Canada
Box 241, 5653 Club Road
Duncan, BC V9L 3X3
Tel: (250) 746-6221
Fax: (250) 746-8397

Fisheries and Oceans Canada
250 - 4877 Argyle Street
Port Alberni, BC V9Y 1V9
Tel: (250) 720-4440
Fax: (250) 724-2555

Fisheries and Oceans Canada
60 Front Street
Nanaimo, BC V9R 5H7
Tel: (250) 754-0230
Fax: (250) 754-0309

Fisheries and Oceans Canada
7255 Duncan Street
Powell River, BC V8A 5N6
Tel: (604) 485-7963
Fax: (604) 485-7439

Fisheries and Oceans Canada
3225 Stephenson Point Rd.
Nanaimo, BC V9T 1K3
Tel: (250) 756-7270
Fax: (250) 756-7162

Fisheries and Oceans Canada
4250 Commerce Circle
Victoria, BC V8Z 4M2
Tel: (250) 363-3252
Fax: (250) 363-0191

FISHERIES AND OCEANS CANADA (continued)

Website: <http://www.dfo-mpo.gc.ca/index.htm>

Interior

<p>Fisheries and Oceans Canada Box 130 Highway 20 Bella Coola, BC V0T 1C0 Tel: (250) 799-5345 Fax: (250) 799-5540</p>	<p>Fisheries and Oceans Canada Box 99, 137 Bay St Queen Charlotte City, BC V0T 1S0 Tel: (250) 559-4413 Fax: (250) 559-4678</p>
<p>Fisheries and Oceans Canada Box 610, 1121 E. Yellowhead Highway Clearwater, BC VOE 1N0 Tel: (250) 674-2633 Fax: (250) 674-3553</p>	<p>Fisheries and Oceans Canada 1205 North Cariboo Highway 97 Quesnel, BC V2J 2Y3 Tel: (250) 992-2434 Fax: (250) 992-7232</p>
<p>Fisheries and Oceans Canada 985 McGill Place Kamloops, BC V2C 6X6 Tel: (250) 851-4950 Fax: (250) 851-4951</p>	<p>Fisheries and Oceans Canada Box 1160, 1751 – 10th Ave. SW Salmon Arm, BC V1E 4P3 Tel: (250) 804-7000 Fax: (250) 804-7010</p>
<p>Fisheries and Oceans Canada Box 315 654 Industrial Place Lillooet, BC VOK 1V0 Tel: (250) 256-2650 Fax: (250) 256-2660</p>	<p>Fisheries and Oceans Canada Box 578, 3177 Tatlow Road Smithers, BC V0J 2N0 Tel: (250) 847-2312 Fax: (250) 847-4723</p>
<p>Fisheries and Oceans Canada 118 McDonald Drive Nelson, BC V1L 6B9 Tel: (250) 352-0892 Fax: (250) 352-0916</p>	<p>Fisheries and Oceans Canada 5235 A Keith Ave. Terrace, BC V8G 1L2 Tel: (250) 615-5350 Fax: (250) 615-5364</p>
<p>Fisheries and Oceans Canada 3690 Massey Drive Prince George, BC V2N 2S8 Tel: (250) 561-5366 Fax: (250) 561-5534</p>	<p>Fisheries and Oceans Canada 310A North Broadway Williams Lake, BC V2G 2Y7 Tel: (250) 305-4002 Fax: (250) 305-3017</p>

PROVINCIAL AGENCIES

AGRICULTURAL LAND COMMISSION

Website: <http://www.alc.gov.bc.ca/>

<p>Provincial Agricultural Land Commission 133-4940 Canada Way Burnaby, BC V5G 4K6 Tel: (604) 660-7000 Fax: (604) 660-7033</p>	
--	--

BC MINISTRY OF AGRICULTURE AND LANDS

Website: <http://www.gov.bc.ca/al/>

Enquiry BC: 1 800 663-7867

Lower Mainland	
<p>Agriculture/Horticulture/Dairy Ministry of Agriculture and Lands 1767 Angus Campbell Rd. Abbotsford, BC V2G 3M2 Phone: (604) 556-3001 Fax: (604) 556-3030 Toll Free: 1-888-221-7141</p>	<p>Plant Diagnostic Lab Ministry of Agriculture and Lands 1767 Angus Campbell Rd. Abbotsford, BC V2G 3M2 Tel: (604) 556-3001 Fax: (604) 556-3154 Toll Free: 1-888-221-7141</p>
<p>Animal Health Branch Ministry of Agriculture and Lands 1767 Angus Campbell Rd. Abbotsford, BC V2G 3M2 Tel: (604) 556-3003 Fax: (604) 556-3010 Toll Free: 1-800-661-9903</p>	<p>Resource Management Branch Ministry of Agriculture and Lands 1767 Angus Campbell Rd. Abbotsford, BC V2G 3M2 Tel: (604) 556-3001 Fax: (604) 556-3099 Toll Free: 1-888-221-7141</p>
Vancouver Island	
<p>Ministry of Agriculture and Lands BC Access Centre 2500 Cliffe Avenue Courtenay, BC V9N 5M6 Tel: (250) 897-7540 Fax: (250) 334-1410</p>	<p>Ministry of Agriculture and Lands Minister's Office PO Box 9043 Stn Prov Govt Victoria, BC V8W 9E2 Tel: (250) 387-1023 Fax: (250) 387-1522</p>
<p>Ministry of Agriculture and Lands 5785 Duncan St. Duncan, BC V9L 5G2 Tel: (250) 746-1210 Fax: (250) 746-1292</p>	<p>Ministry of Agriculture and Lands 808 Douglas Street Victoria, BC V8W 2Z7 Tel: (250) 356-2521 Fax: (250) 953-5162</p>

BC MINISTRY OF AGRICULTURE AND LANDS (continued)

Website: <http://www.gov.bc.ca/al/>

Enquiry BC: 1 800 663-7867

Interior

Ministry of Agriculture and Lands 1902 Theatre Road Cranbrook, BC V1C 7G1 Tel: (250) 420-2167 Fax: (250) 420-1767	Ministry of Agriculture and Lands Room 200 – 1690 Powick Road Kelowna, BC V1X 7G5 Tel: (250) 861-7211 Fax: (250) 861-7490 Toll Free: 1-888-332-3352
Ministry of Agriculture and Lands 1243 Northwest Boulevard Creston, BC V0B 1G6 Tel: (250) 402-6429 Fax: (250) 402-6497	Ministry of Agriculture and Lands Suite 815 – 299 Victoria St. Prince George, BC V2L 5B8 Tel: (250) 565-7200 Fax: (250) 565-7213 Toll Free: 1-800-334-3011
Ministry of Agriculture and Lands 1201 - 103 rd Avenue Dawson Creek, BC V1G 4J2 Tel: (250) 784-2601 Fax: (250) 784-2299	Ministry of Agriculture and Lands 3rd Floor, 3726 Alfred Ave Smithers, BC V0J 2N0 Tel: (250) 847-7246 Fax: (250) 847-7556
Ministry of Agriculture and Lands 10043 100 th Street Fort St. John, BC V1J 3Y5 Tel: (250) 787-3240 Fax: (250) 787-3299	Ministry of Agriculture and Lands 4607 – 23 rd St. Vernon, BC V1T 4K7 Tel: (250) 260-3000 Fax: (250) 549-5488 Toll Free: 1-800-702-5585
Ministry of Agriculture and Lands 162 Oriole Road Kamloops, BC V2C 4N7 Tel: (250) 371-6050 Fax: (250) 828-4631 Toll Free: 1-888-823-3355	Ministry of Agriculture and Lands 300 – 640 Borland St. Williams Lake, BC V2G 4T1 Tel: (250) 398-4500 Fax: (250) 398-4688

BC MINISTRY OF ENVIRONMENT

Website: www.gov.bc.ca/env

Enquiry BC: 1 800 663-7867

Vancouver Island Region 2080-A Labieux Road Nanaimo, BC V9T 6J9 Tel: (250) 751-3100 Fax: (250) 751-3103	Lower Mainland Region Regional Headquarters, 2nd Floor 2 nd Floor, 10470 - 152 nd Street Surrey, BC V3R 0Y3 Tel: (604) 582-5200 Fax: (604) 930-7119
Thompson Region 1259 Dalhousie Drive Kamloops, BC V2C 5Z5 Tel: (250) 371-6200 Fax: (250) 828-4000	Skeena Region PO Box #5000 3726 Alfred Avenue Smithers, BC V0J 2N0 Tel: (250) 847-7260 Fax: (250) 847-7591
Cariboo Region 400 - 640 Borland Street Williams Lake, BC V2G 4T1 Tel: (250) 398-4530 Fax: (250) 398-4214	Okanagan Region 102 Industrial Place Penticton, BC V2A 7C8 Tel: (877) 356-2029
Omineca Region 4051 18th Ave Prince George, BC V2N 1B3 Tel: (250) 565-6135 Fax: (250) 565-6940	Kootenay Region Environmental Stewardship Division 205 Industrial Road G Cranbrook, BC V1C 7G5 Tel: (250) 489-8540 Fax: (250) 489-8506
Peace Region 400-10003 – 110 Avenue Fort St John, BC V1J 6M7 Tel: (250) 787-3411 Fax: (250) 787-3490	Environmental Protection Division 401 – 333 Victoria Street Nelson, BC V1L 4K3 Tel: (250) 354-6333 Fax: (250) 354-6332

APPENDIX 3 - LEGISLATION

PLEASE NOTE: This section has been prepared for information purposes only and has no official sanction. It is not a substitute for the Acts mentioned or any regulations under these Acts. In the event of an inconsistency between the information included here and the Act or its regulations, the latter would prevail. Official or more detailed information can be found in the legal text of the Acts.

FEDERAL LEGISLATION

Canadian Environmental Assessment Act

This Act establishes the legal framework for the federal environmental assessment process. The Act applies to projects or undertakings in which the Government of Canada has decision-making authority, whether as a proponent, land manager, funding agency or regulator. It requires that such projects undergo a review before they are allowed to proceed to ensure that they do not cause significant adverse environmental effects. The Act promotes cooperation between federal and provincial governments concerning environmental assessment, and includes requirements for public consultation. The Act is administered by the Canadian Environmental Assessment Agency, which reports to the Minister of Environment.

Full legal text of the Act is available at
<http://laws.justice.gc.ca/en/showtdm/cs/C-15.2>

Canadian Environmental Assessment Registry
http://www.ceaa-acee.gc.ca/050/index_e.cfm

Canadian Environmental Protection Act, 1999

This Act establishes the legal framework for pollution prevention in Canada, and is intended to ensure the protection of the environment and human health from toxic substances and wastes. It addresses both air and water pollution from diverse sources, including nutrients; fuels; and vehicle, engine and equipment emissions. It also provides the Minister of Environment with the authority to require the development of pollution prevention plans in specific circumstances.

Full legal text of the Act is available at
<http://laws.justice.gc.ca/en/showtdm/cs/C-15.31>

CEPA Environmental Registry
<http://www.ec.gc.ca/ceparegistry/default.cfm>

Fisheries Act

The purpose of this Act is to conserve and protect Canada's fisheries resources, including fish habitat. The Act applies to all Canadian fisheries waters, including ditches, channelized streams, creeks, rivers, marshes, lakes, estuaries, coastal waters and marine offshore areas. It also applies to seasonally wetted fish habitat such as shorelines, stream banks, floodplains, intermittent tributaries and wetlands. The Act establishes numerous specific requirements concerning the management of fish and fish habitat. In general terms, the Act has four main requirements:

- it prohibits the killing of fish by means other than fishing;
- it prohibits the harmful alteration, disruption or destruction (HADD) of fish habitat;
- it requires the provision of sufficient flows for fish; and
- it prohibits the deposit of deleterious substances into fisheries waters.

In certain circumstances, DFO may review projects to evaluate their potential impact on fish habitat and may issue authorizations to enable a HADD to proceed, provided that appropriate mitigation measures are in place. Project proponents are ultimately responsible for avoiding the HADD. DFO is responsible for the administration and enforcement of the habitat provisions of the *Fisheries Act*, while Environment Canada is responsible for the pollution prevention provisions. The Act contains provisions for stiff fines and imprisonment for offences.

Full legal text of the Act is available at
<http://laws.justice.gc.ca/en/showtdm/cs/F-14>

Migratory Birds Convention Act, 1994

The purpose of this Act is to ensure the protection and conservation of migratory birds in Canada, both as populations and individual birds. The Act makes it illegal to disturb, destroy or take an egg, nest, or other shelter of a migratory bird without a permit. The Act also prohibits the possession, purchase, sale or other exchange of a migratory bird or its nest without authorization. The Act further prohibits the deposit of any substance that may be harmful to migratory birds, (for example, oil, pesticides) in waters or other areas that they frequent. The Act allows for the use of equipment, other than aircraft or firearms, to scare migratory birds that may be causing damage to crops or other property. Native birds that are not protected by this Act but are protected by the provincial *Wildlife Act* include raptors (including owls), upland game birds, pelicans, cormorants, kingfishers, crows, ravens, jays, magpies, and blackbirds. Selected introduced bird species that have proven to be invasive and problematical are not protected by either Act. The *Migratory Birds Convention Act* is administered by Environment Canada.

Full legal text of the Act is available at
<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>

Pest Control Products Act

Administered by Health Canada, this Act serves to protect human health and safety and the environment by regulating products used for the control of pests (for example, herbicides, insecticides, fungicides, biological controls). The Act applies to all pest control products, whether they are used in agriculture, forestry, industry, public health or domestic situations. The Act requires that pest control products be registered and bear a *Pest Control Products Act* registration number on the label before they can be used legally in Canada. It is an offence under the Act to use an unregistered pesticide or to use a pest control product in a way that is inconsistent with the directions or limitations as shown on the product label. Provisions exist in the Act to approve the use of products not registered in Canada if no acceptable alternative control is available. The expanded use of registered products for non-registered uses may also be granted under specific circumstances.

Full legal text of the Act is available at
<http://laws.justice.gc.ca/en/showtdm/cs/P-9.01>

Plant Protection Act

Administered by Agriculture and Agri-Food Canada, this Act serves to protect plant life and the agriculture and forestry industries by preventing the import, export and spread of injurious pests. Under the Act, a pest means anything that is known or suspected to be injurious, whether directly or indirectly, to plants or to products or by-products of plants. A plant can be considered a pest. The Act prohibits the introduction of pests, whether deliberate or unintentional, and provides for the control and eradication of such pests where they occur. The Act further allows the Minister of Agriculture and Agri-Food Canada to provide financial or technical assistance to any person or government outside Canada in order to control or eradicate a pest that could affect plants in this country.

Full legal text of the Act is available at
<http://laws.justice.gc.ca/en/showtdm/cs/P-14.8>

Species at Risk Act

Administered by Environment Canada, the purpose of this Act is to prevent native species in Canada from becoming extirpated or extinct, to provide for the recovery of endangered or threatened species and to encourage the management of other species to prevent them from becoming at risk. Schedule 1 of the Act sets out the list of species legally considered to be at risk in Canada. The Act applies to all waters in Canada as well as to all federal lands, including Indian reservations and national parks, and the airspace above them. Under the Act, the Minister of Environment has the authority to apply the provisions of the Act to provincial lands if it is felt that provincial laws are not providing effective protection.

Where the Act applies, it makes it illegal to kill, harm, harass, capture or take a species at risk, or to possess, collect, buy, sell or trade any individual or parts of an individual that is at risk. The Act also prohibits the damage or destruction of either the residence (for example, the nest or den) or the critical habitat of any species at risk. On private land, these prohibitions apply only to:

- aquatic species at risk; and
- migratory birds listed in the *Migratory Birds Convention Act, 1994* and also listed as endangered, threatened or extirpated in Schedule 1 of the Act.

The Act requires that recovery strategies be developed and implemented for all species at risk. Fisheries and Oceans Canada leads the recovery planning process for aquatic species, while Environment Canada and Parks Canada lead the process for all other species.

Full legal text of the Act is available at
<http://laws.justice.gc.ca/en/showtdm/cs/S-15.3>

Species at Risk Public Registry
<http://www.sararegistry.gc.ca>

Aquatic Species at Risk Homepage - DFO
http://www.dfo-mpo.gc.ca/species-especies/home_e.asp

PROVINCIAL LEGISLATION

Community Charter

The *Community Charter* contains provisions enabling municipalities to establish bylaws and services that can help protect biodiversity. This includes the authority for municipalities to create bylaws to protect trees and the concurrent authority to develop other regulatory bylaws to protect the environment, subject to provincial involvement and regulation. The *Environment and Wildlife Regulation* (B.C. Reg. 144/2004) establishes the specific types of bylaws that municipalities can adopt under this concurrent authority to protect the natural environment. By bylaw, municipalities can:

- regulate and prohibit activities affecting waterways;
- regulate, prohibit, and impose requirements for sale of wild flowers;
- regulate, prohibit, and impose requirements in relation to the application of pesticides for certain purposes (with some restrictions);
- regulate, prohibit, and impose requirements to control and eradicate some alien invasive species; and
- regulate, prohibit, and impose requirements to control some wildlife species.

Text of the *Community Charter* is available at

http://www.bclaws.ca/Recon/document/freeside/--%20c%20--/community%20charter%20%20sbc%202003%20%20c.%2026/00_act/03026_00.htm

Text of the *Environment and Wildlife Regulation* (B.C. Reg. 144/2004) is available at

http://www.bclaws.ca/Recon/document/freeside/--%20c%20--/community%20charter%20%20sbc%202003%20%20c.%2026/05_regulations/41_144_2004.xml

Environmental Management Act

The purpose of the *Environmental Management Act* is to protect human health and the quality of water, land and air in British Columbia through authorizing the introduction of waste into the environment in a manner that will not cause pollution. Waste is defined as including “air contaminants, litter, effluent (liquid), refuse (solid), biomedical waste, hazardous wastes” and any other substance designated by Cabinet. Pollution is defined in the Act as “the presence in the environment of substances or contaminants that substantially alter or impair the usefulness of the environment.”

Section 6 of the Act provides for an exemption from obtaining authorization (an approval, permit or operational certificate) to discharge waste to the environment for industries, trades, businesses, operations and activities that are “prescribed” in the *Waste Discharge Regulation*. Within this *Regulation*, the Code of Agricultural Practice for Waste Management describes agricultural practices for using, storing and managing agricultural waste in a manner that is environmentally sound. The *Agricultural Waste Control Regulation* allows “agricultural operations” an exemption from section 6(2) and 6(3) of the Act through this *Code of Practice*.

Agricultural activities are subject to several other regulations under this Act, such as the *Contaminated Sites Regulation* and the *Open Burning Smoke Control Regulation*. The full *Agricultural Waste Control Regulation* and *Code of Agricultural Practice for Waste Management*, along with information on the other regulations can be found in Appendix A.6. of the *EFP Nutrient Management Reference Guide*.

Text of the Act is available is at

http://www.bclaws.ca/Recon/document/freeside/--%20e%20--/environmental%20management%20act%20%20sbc%202003%20%20c.%2053/00_act/03053_04.xml

Text of the *Waste Discharge Regulation* is available at

http://www.bclaws.ca/Recon/document/freeside/--%20E%20--/Environmental%20Management%20Act%20%20SBC%202003%20%20c.%2053/05_Regulations/50_320_2004.xml

Fish Protection Act

The *Fish Protection Act* enables the protection of fish and fish habitats. Four main objectives of the Act are to ensure sufficient water for fish; enable fish habitat to be protected and restored; improve riparian habitat protection and enhancement; and, give local governments greater powers of environmental planning.

One major section of the Act prohibits construction of new dams on specified major rivers. Another part of the Act allows designation of sensitive streams and recovery plans. Such streams would have restrictions placed on new water licenses or approvals, or amendments to existing ones until the stream has recovered.

Under the Act and through the *Riparian Areas Regulation* the province can provide directives to local government to protect riparian fish habitat during their approval/allowance of residential, commercial, and industrial development. This includes residential buildings on land zoned for agricultural purposes. The *Riparian Areas Regulation* is administered by the Ministry of Environment.

Text of the Act is available at
http://www.qp.gov.bc.ca/statreg/stat/F/97021_01.htm¹

Text of the *Riparian Areas Regulation* is available at
http://www.qp.gov.bc.ca/statreg/reg/F/FishProtect/376_2004.htm

Integrated Pest Management Act

This Act, administered by the British Columbia Ministry of Environment, establishes conditions for the sale and use of pesticides in BC. It requires that pesticides not be stored, handled, transported, used or disposed of in a manner that causes, or is likely to cause, an unreasonable adverse effect. The legislation establishes standards for pesticide storage, transport, sale and use and requires that pesticides applied on public land, private forest land, rights-of-way or on a fee-for-service basis be used as part of an Integrated Pest Management program.

Text of the Act is available at
http://www.qp.gov.bc.ca/statreg/stat/I/03058_01.htm

Text of the *Integrated Pest Management Regulation* is available at
http://www.qp.gov.bc.ca/statreg/reg/I/604_2004.htm

Summary of the Act and Regulation is available at
http://www.llbc.leg.bc.ca/public/pubdocs/bcdocs/378602//leg_summary.pdf

Local Government Act

Local governments in British Columbia (municipalities, regional districts, and the Islands Trust) are responsible for regulating private land use and development through planning, zoning, and subdivision control. The *Local Government Act* is the primary provincial statute that enables local governments in British Columbia to establish local planning bylaws that can contain policies for protecting the natural environment and reducing greenhouse gases. Regional districts and municipalities can also work together to develop regional growth strategies to protect

¹ This version of the Statutes and Regulations of British Columbia, and the other links to provincial legislation in this section, are for private study or research purposes only, and are not the official version. The Province of British Columbia does not warrant the accuracy or the completeness of this electronic version of the Statutes and Regulations and in no event will the Province be liable or responsible for damages of any kind arising out of the use of them.

environmentally sensitive areas and address other growth issues. A regional growth strategy has to cover a 20-year time period and must include provisions for addressing regional-scale issues related to parks and natural areas.

Text of the Act is available at

http://www.bclaws.ca/Recon/document/freeside/--%20I%20--/local%20government%20act%20%20rsbc%201996%20%20c.%20323/00_act/96323_00.htm

Plant Protection Act

Administered by the Ministry of Agriculture and Lands, this Act is the provincial counterpart to the federal *Plant Protection Act* that focuses on plant protection issues affecting Canada. It provides for the prevention of the spread of pests destructive to plants in BC. Inspectors have powers to enforce the provisions of the Act, including the authority to establish quarantine areas. To assist in the enforcement of the Act, the BC Plant Protection Advisory Council advises and coordinates the actions of provincial and federal officials to deal with potential hazards to BC agriculture and forestry from insects, plant diseases, weeds or other biotic agents. The Council's power comes from the mandates of the agencies whose members sit on committees struck to deal with plant protection issues in specific commodity sectors.

Text of the Act is available at

http://www.qp.gov.bc.ca/statreg/stat/P/96365_01.htm

Water Act

The *Water Act* of British Columbia provides a scheme for the licensing and regulation of the diversion, use and storage of water and for authorizing changes in and about streams. The *Water Act* applies only to surface water in streams, which include “a natural watercourse or source of water supply, whether usually containing water or not, and a lake, river, creek, spring, ravine, swamp and gulch”. At this time the provisions do not apply to the diversion and use of groundwater.

Water licences may be granted by designated statutory decision makers – either the Comptroller of Water Rights or Regional Water Managers – in response to applications. Similarly, approvals may be granted that authorize changes in and about streams. Regulations under the *Water Act* also allow for making low risk changes in and about streams without the need for an approval, subject to prescribed conditions and requirements of a habitat officer. Most prescribed activities under the *Water Regulation* require that the Ministry of Environment must be notified of the proposed change 45 days prior to commencement of work.

The process to acquire a licence or approval usually involves consideration of the potential impact on the rights of other licensees as well as possible impacts on the instream flow required for fish and aquatic ecosystems. Applications may be refused or licences granted that include specific conditions to protect instream environmental values. Water use or changes in and about streams may also be subject to review and approval by Fisheries and Oceans Canada under the *Fisheries Act*.

Water Management Planning provisions which have recently been added to the *Water Act* may be implemented to address conflicts between users or between users and instream flow requirements or water quality.

Text of the Act is available at

http://www.qp.gov.bc.ca/statreg/stat/W/96483_01.htm

Weed Control Act

Administered by BC Ministry of Agriculture and Lands, this Act places the responsibility for the control of noxious weeds on the occupiers of the land. It provides for the appointment of inspectors to ensure compliance and, failing that, for a method by which they can control weeds and recover the costs from the occupier. Weed Control Committees may be established by municipal councils to administer the Act within a municipality. Committees report to the municipal council and the Minister.

Text of the Act is available at

http://www.qp.gov.bc.ca/statreg/stat/W/96487_01.htm

Wildlife Act

The purpose of the *Wildlife Act* is to protect and conserve wildlife species and ensure the sustainable use of wildlife resources. The Act regulates human activities (hunting, fishing, possession, import, trafficking, etc.) that affect listed “wildlife” species. The majority of species listed as “wildlife” are native species of mammals, birds, amphibians, reptiles and freshwater inland fish. The Act provides government officials with the authority to regulate personal, recreational, and commercial uses of wildlife and protect wildlife and wildlife habitat from exploitation and destruction. It sets out the rules that must be followed when hunting, trapping, and angling for freshwater fish and possessing live and dead wildlife. The Act is administered by the BC Ministry of Environment.

Text of the Act is available at

http://www.qp.gov.bc.ca/statreg/stat/W/96488_01.htm

Wildlife Amendment Act, 2004

The *Wildlife Amendment Act, 2004* expands the provincial government’s ability to list and protect species at risk under the *Wildlife Act* (See above). It enables government to list as endangered, threatened or extirpated the full range of species that can be similarly listed under the federal *Species at Risk Act* (including plants and invertebrates). It also allows the protection of residences, such as nests or dens, for species at risk. These changes to the *Wildlife Act* must be brought into force through regulation.

Species at risk may include species, subspecies, varieties, or genetically or geographically distinct populations of: animals, fish, plants, or other organisms (except bacteria and viruses). Species residences are a place or area in, or a natural feature of, the habitat of the species at risk that is habitually occupied or used as a dwelling place by one or more individuals, and is considered as necessary for that occupation or use. With listing comes a series of prohibitions against the killing, trading, trafficking and transport of individuals of that species, and against the damage or destruction of its residence. Subject to the regulations, permits may be issued, or agreements entered into, that authorize exceptions to the prohibitions under certain circumstances.

Text of the Act is available at

http://www.leg.bc.ca/37th5th/3rd_read/gov51-3.htm

APPENDIX 4 - OTHER SOURCES OF INFORMATION

- Alberta Agriculture, Food and Rural Development. 2007. Biodiversity conservation guide for farmers and ranchers in Alberta.
- Alberta Riparian Habitat Management Society. Cows and Fish website www.cowsandfish.org/
- Balvanera, P., A.B. Pfisterer, N. Buchmann, J.-S. He, T. Nakashizuka, D. Raffaelli and B. Schmid. 2006. Quantifying the evidence for biodiversity effects on ecosystem functioning and services. *Ecol. Lett.* 9: 1146-1156.
- BC Cattlemen's Association: Farmland–Riparian Interface Stewardship Program www.cattlemen.bc.ca/FRISP.htm
- BC Cattlemen's Association: Wild Predator Loss Control and Compensation Program www.cattlemen.bc.ca/wplccp.htm
- BC Conservation Data Centre www.env.gov.bc.ca/cdc/
- BC Ministry of Agriculture and Lands: Agricultural Policy Framework (APF) in B.C. Services and Program Guide www.al.gov.bc.ca/apf/env.html
- BC Ministry of Agriculture and Lands Infobasket website <http://infobasket.gov.bc.ca/portal/server.pt?>
- BC Ministry of Environment: Alien species website http://www.env.gov.bc.ca/wld/aliensp/alien_links.html
- BC Ministry of Environment: Biodiversity in BC www.env.gov.bc.ca/wld/bio.htm
- BC Ministry of Environment: Ecology website www.env.gov.bc.ca/ecology/index.html
- BC Ministry of Forests: Ecosystem brochures www.for.gov.bc.ca/hre/becweb/resources/classificationreports/provincial/index.html
- BC Ministry of Forests: Forest District biogeoclimatic maps www.for.gov.bc.ca/hre/becweb/resources/maps/fieldmaps.html
- BC Ministry of Forests: Forest Region field guides www.for.gov.bc.ca/hre/becweb/resources/classificationreports/regional/index.html
- Beetz, A. 2002. Agroforestry overview. Horticulture systems guide. http://attra.ncat.org/new_pubs/attra-pub/agroforestry.html?id=other
- Biodiversity Conservation Strategy for the Greater Vancouver Region <http://www.metrovancouver.org/planning/development/biodiversity/EcologicalHealthDocs/BiodiversityConservationStrategyPartnership.pdf>
- Brown, M.W., and T. Tworowski. 2004. Pest management benefits of compost mulch in apple orchards. *Agriculture, Ecosystems and Environment* 103: 465–472.
- Brown, M.W., and T. Tworowski. 2006. Enhancing biocontrol in orchards by increasing food web biodiversity. *Journal of Fruit and Ornamental Plant Research* 14 (Suppl. 3): 19–27.
- Bullock, J.M., R.F. Pywell, M.J.W. Burke, and K.J. Walker. 2001. Restoration of biodiversity enhances agricultural production. *Ecol. Lett.* 4: 185–189.

Canadian Biodiversity Information Network www.cbin.ec.gc.ca

Canadian Intermountain Joint Venture www.cjiv.ca/vision.htm

Convention on Biological Diversity www.cbd.int

Delta Farmland and Wildlife Trust www.deltafarmland.ca/dfwt.html

Develop with Care: Appendix C: Sources for environmental mapping and inventory
www.env.gov.bc.ca/wld/documents/bmp/devwithcare2006/DWC%202006%20Sec%207%20App%20C%20Sources.pdf

Ducks Unlimited Canada www.ducks.ca/province/bc/index.html

Environment Canada Species at Risk website www.speciesatrisk.ec.gc.ca

Fish Wizard www.fishwizard.com/default.htm

Fisheries and Oceans Canada. (n.d.). Healthy streams, yours to protect and enjoy
www-heb.pac.dfo-mpo.gc.ca/community/pdf/00PubCatlg0507.pdf

FrontCounter BC www.frontcounterbc.gov.bc.ca/

GeoGratis internet map site www.geogratis.cgdi.gc.ca/geogratis/en/index.html

Google Earth <http://earth.google.com/>

Hectares BC www.hectaresbc.org/app/habc/HaBC.html

Invasive Plant Council of BC www.invasiveplantcouncilbc.ca/

Jones, G.A., and J.L. Gillet. 2005. Intercropping with sunflowers to attract beneficial insects in organic agriculture. *Florida Entomologist*, 88, 91-96.

Loreau, M., J. Roy, and D. Tilman. 2004. Linking ecosystem and parasite ecology. *Parasitism and Ecosystems*. F. R. a. J.-F. G. F. Thomas. Oxford, UK, Oxford University Press: 13–21.

Low Input Viticulture and Enology, Inc. www.liveinc.org/

Mäder, P., A. Fliebach, D. Dubois, L. Gunst, P. Fried, and U. Niggli. 2002. Soil fertility and biodiversity in organic farming. *Science* 296: 1694-1697.

Minns, A., J. Finn, A. Hector, M. Caldeira, J. Joshi, C. Palmberg, B. Schmid, M. Scherer-Lorenzen, E. Spehn, and A. Troumbis. 2001. The functioning of European grassland ecosystems: potential benefits of biodiversity to agriculture. *Outlook on Agriculture* 30(3): 179-185.

National Sustainable Agriculture Information Service. 2005. Maximize biodiversity on the farm.
http://attra.ncat.org/new_pubs/attra-pub/sustagintro.html?id=other#maximize

Natural Resources Conservation Service. 1999. Grassland birds. Fish and Wildlife Management Leaflet. <ftp://ftp-fc.sc.egov.usda.gov/WHMI/WEB/pdf/GRASS1.pdf>

Pacific Coast Joint Venture www.pcjv.org

Partners in Flight www.pifbcyukon.org

Roscher, C., V.M. Temperton, M. Scherer-Lorenzen, M. Schmitz, J. Schumacher, B. Schmid, N. Buchmann, W.W. Weisser, and E-D. Schulze. 2005. Overyielding in experimental grassland communities – irrespective of species pool or spatial scale. *Ecol. Lett.* 8: 419–429.

Salmon River Watershed Roundtable www.srwr.ca/

South Okanagan-Similkameen Conservation Program <http://www.soscp.org/>

Species at Risk Act Public Registry www.sararegistry.gc.ca

Thevathasan, N.V., and A.M. Gordon. 2004. Ecology of tree intercropping systems in the North temperate region: experiences from southern Ontario, Canada. *Agroforestry Systems* 61: 257–268.

Tilman, D., P.B. Reich, J. Knops, D. Wedin, T. Mielke, and C. Lehman. 2001. Diversity and productivity in a long-term grassland experiment. *Science* 294: 843–845.

Tilman, D., P.B. Reich, and M.H. Knops. 2006. Biodiversity and stability in a decade-long experiment. *Nature* 441: 629–632.

Tilman, G.D., D.N. DuVick, S.B. Brush, R.J. Cook, G.C. Daily, G.M. Heal, S. Naeem, and D. Notter. 1999. Benefits of biodiversity. Council for Agricultural Science and Technology. Task Force Report No. 133: 40.

Tugel, A., A. Lewandowski, and D. Happe-vonArb. (eds). 2000. *Soil Biology Primer*. Rev. ed. Ankeny, Iowa: Soil and Water Conservation Society. www.ctenvirothon.org/studyguides/soil_docs/Soil_Biology_Primer.pdf

Vossen, P., and C. Ingals. 2002. Orchard floor management. <http://ucce.ucdavis.edu/files/filelibrary/2161/17388.pdf>

Wetlands of British Columbia <http://www.for.gov.bc.ca/hfd/pubs/Docs/Lmh/Lmh52.pdf>

Wild Farm Alliance. (n.d.) Grazing for biodiversity: the co-existence of farm animals and native species. <http://www.wildfarmalliance.org/resources/wfagrazebrief.pdf>

Wild Farm Alliance. 2003. Making connections for nature. www.wildfarmalliance.org/resources/wfaconnectbrief.pdf

Wild Farm Alliance. 2005. Biodiversity conservation: An organic farmer's guide. www.wildfarmalliance.org/resources/BD%20Guide%20Organic%20Farmers%20.pdf

Wild Farm Alliance. 2005. Biodiversity: What it is and how to increase it on your farm. <http://www.wildfarmalliance.org/resources/BDBrochure.pdf>

Wild Farm Alliance. 2005. Organic and biodiversity news. http://www.wildfarmalliance.org/resources/organic_BD.htm

Wild Farm Alliance. 2005. Wild pollinators: Agriculture's forgotten partners. <http://www.wildfarmalliance.org/resources/wfapollinatorbrief.pdf>

Yellowstone to Yukon Conservation Initiative www.y2y.net