

Environmental Guidelines for Urban and Rural Land Development in British Columbia



Golf courses can have a significant impact on the natural environment. This fact sheet provides information on ways to lessen these impacts.

There are many guidelines that you can follow to protect environmental values during the design, construction and maintenance of golf courses and other developments. These are described in more detail in *Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia*.

With appropriate location and design, golf courses can provide valuable open spaces, greenbelts, natural sanctuaries, and wildlife habitats, especially in areas undergoing urban expansion.

DESIGN AND DEVELOPMENT

Create and maintain wildlife habitat where possible

- Work with an appropriately qualified professional to identify important Environmentally Valuable Resources before designing and building golf courses and related infrastructure.
- Protect existing wildlife habitats, and incorporate these into the golf course design.
- Fence off environmentally sensitive areas and protect tree roots from compaction, soil disturbance or changes to soil moisture.
- Enhance areas around greens and fairways with native plantings. Native species will require little maintenance (once established) and will provide food sources for local wildlife.
- Retain grassy roughs. Leaving areas where grasses can grow to about 30 cm creates good habitats for voles and other small rodents, which in turn provide food sources for raptors.
- If there are raptor nest trees, see the Fact Sheets on *Bald Eagles and Ospreys* and *Hérons*.

Protect streams and groundwater

- Design the course to avoid streams and wetlands. Retain wide vegetated riparian buffers along streams and around wetlands and ponds. Limit the number of stream crossings, and retain trees and shrubs along the shorelines to minimize erosion.



Without riparian vegetation, the water in this stream will be too warm for fish to survive.

More information on environmental best practices for developing and managing golf courses is available from:

- ◇ The Audubon Program—information and advice for conducting proactive environmental projects on golf courses <http://www.auduboninternational.org/acspgolf>
- ◇ *Greening Your BC Golf Course: A guide to environmental management.* (Environment Canada 1996)
- ◇ *Bird Conservation on Golf Courses: A Design and Management Manual* <http://www.usga.org/PublicationStore/PubStoreProductDetails.aspx?id=2147495524>

- ◇ *The Royal Canadian Golf Association: Guidelines for Developers and Designers and Guidelines for Directors, Managers and Superintendents* <http://golfsupers.com/en/communication/environment/cgsa-environmental-guidelines>
- ◇ *IPM (Integrated Pest Management) Handbook for Golf Courses*: <http://www.usga.org/PublicationStore/PubStoreProductDetails.aspx?id=2147495527>

- ☑ Use low-growing native shrubs for fairway stream crossings rather than removing all vegetation. Minimize stream crossings.
- ☑ Encourage groundwater infiltration. Avoid soil compaction, and minimize the use of pavement and other hard, impervious surfaces.



This made-made lake captures rainwater for irrigating the golf course, and adds value to the nearby development

For more information see:

Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia and other **Guideline documents** <http://www.env.gov.bc.ca/wld/BMP/bmpintro.html>

Riparian Areas Regulation: http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.html

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MAINTENANCE

- ☑ Top hazard trees at 3–5 m or higher rather than completely removing them. This creates a standing dead snag, a food source for a variety of bird species and potential nesting sites for owls and other wildlife.
- ☑ Use integrated pest management approaches. Avoid or minimize the use of pesticides or other chemicals that can end up in local waterways.

MINIMIZE WATER USE

- ☑ Design the golf course to minimize the need for watering. Narrow fairways and roughs, and incorporating native vegetation between holes, reduces water use.
- ☑ Use drought-tolerant grasses for fairways and other grassed areas.
- ☑ Use highly efficient irrigation systems, using certified irrigation designers and installers. For more information see www.irrigationbc.com.
- ☑ Where possible, seek local sources of recycled water. Some golf courses are using treated grey water from nearby subdivisions for irrigation.