

# EBSC CONSULTANTS

Eastern Canada: Brian Allen  
Telephone: (705) 730-0284  
Email: brian.allen@sympatico.ca

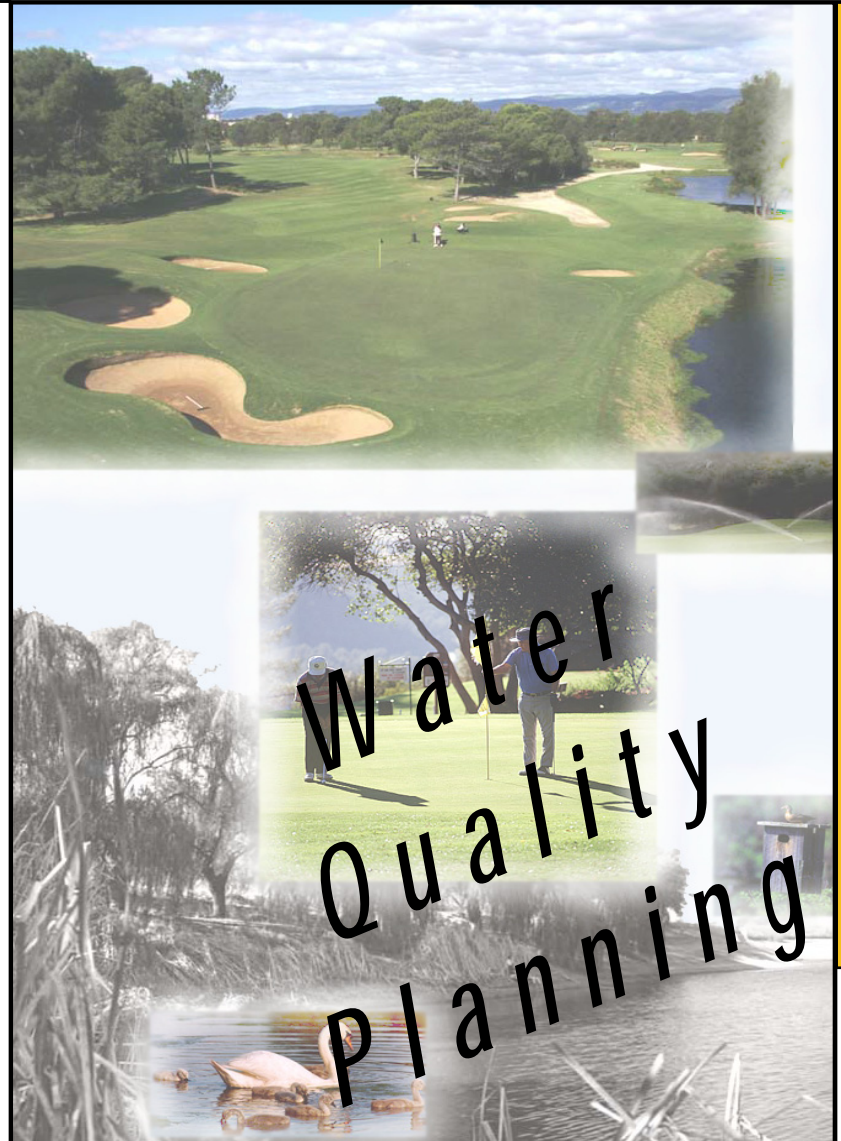
Western Canada: John Jonasson, P. Eng.  
Address: 193 Vince Leah Drive  
Winnipeg, MB R2V 4A3  
Telephone: (204) 229-5680  
Email: golferschoice@mb.sympatico.ca  
Website: ebscgolf.com

## EBSC Offers:

- Training
- Product/Services
- Management Systems

For Enhanced  
Environmental  
Performance

*\* Member of the Canadian Golf Superintendents' Association*



# EBSC CONSULTANTS

"Providing Environmental Business Solutions"

"Providing Environmental Business Solutions"

## Who is EBSC Consultants?

EBSC is a full service environmental consulting firm which provides a variety of programs, training, tools, systems and products to assist the golf industry in achieving environmental compliance and attaining increased environmental performance and efficiency.

## Why is Environmental Performance Important?

Over the past 30 years, North America's seemingly endless supply of fresh water has significantly diminished. Due to the diminishing stock of fresh water, laws and regulations governing water (use, discharge, allocation, quality, etc.) have become very stringent.

One of the greatest challenges today is to better understand and to control, where necessary, the introduction of nutrients into surface and ground water. Soils at golf courses tend to be rich in nitrogen and phosphorus, streams may be turbid thus limiting light penetration and these loadings can have a profound effect on water quality adjacent to golf courses.

The main factors that may contribute to the high nutrient content in these systems include erosion of naturally fertile soils, surface run-off of fertilizers, urban run-off and storm sewer discharges.

Nutrient enrichment can directly or indirectly impact the water quality of surface waters. An overabundance of nutrients can lead to excessive growth of algae and macrophytes within an aquatic system, which can greatly alter the overall structure of the ecosystem by favouring the growth of opportunistic species. Nutrient enrichment has long been recognized as a major water quality issue.

## Water Quality Planning

A Water Quality Plan includes a protocol for a baseline analysis of surface water and groundwater. Analysis will establish nutrients and chemicals present in water. By understanding conditions at your golf course and by implementing Best Management Practices (BMPs), water quality can be more effectively managed by limiting potential adverse impacts to groundwater and surface water.

Some BMPs to improve water quality include:

- Native vegetation buffers for waterbodies (including wetlands)
- No spray or limited spray zones near water bodies
- Stormwater runoff management
- Control of non-point source pollution
- Grassed drainage swales
- Development of nutrient management plans to minimize nutrient transportation
- Training of staff/employees in BMPs

By implementing BMPs and a water quality program, golf course management will reduce liabilities associated with water impacted from nutrient loading.

Likewise, the liability associated with other chemicals (pesticides, heavy metals e.g. copper, arsenic, etc., sulfates and sediments) will be reduced by implementing a water quality program.

## Water Quality Monitoring

EBSC will design a site specific water quality management program to improve your overall environmental performance and reduce your Club's liabilities. Our approach is designed to meet your needs on a yearly basis. The system is outlined below:

**Step I:** Site visit to meet with key staff and review current practices and understand your environmental setting.

**Step II:** Preliminary report that provides an overview of critical issues. As part of this report, recommendations are made in regards to practices/products and a water sampling program.

**Step III:** Implementation of Phase II report including on-site sampling (Baseline) and training of staff.

**Step IV:** Analytical report outlines the results of water quality sampling and will provide a barometer to your Club performance. Also includes operational/product change.

**Step V:** Year end sampling at the Club to provide ongoing assessment of environmental conditions.

**Step VI:** Year end report which summarizes the two sets of sampling events from the year and will provide guidance and recommendation for the next year.

By allowing EBSC to design a comprehensive program in year one, your Club may continue with the program (on your own) and as needed bring on EBSC professionals to guide/assist with the water quality program in a cost effective manner.

