

## 11.3 PROTOCOL FOR POINT INTERCEPT MACROPHYTE SURVEYS

### Overview

Point Intercept surveys are conducted by sampling for aquatic macrophytes at regularly spaced, pre-selected points in a grid pattern. The survey data can be used to identify and delineate plant communities or bed types. The end products for a qualitative Point Intercept survey include a map showing the distribution of plant bed types plus a list of species for each plant bed type and the water body or study area as a whole. Conduct surveys over an entire water body or a discrete area within a water body, but either way survey an entire study area without reliance on subjective site selection in the field. Determine the grid node (i.e., sampling site) coordinates manually from maps, or if possible generate these with the aid of GPS or GIS software packages.

### Sources

British Columbia MWLAP (2003), Alberta Environment (2006 a), Développement durable, Environnement et Parcs, Gouvernement du Québec (2007)

### At a glance

**1** Navigate to each pre-selected point in a regular pattern. Sample sites located in shallows by wading.

**2** Record at all sites, water depth, Secchi depth, turbidity and bottom light level (if equipment is available). Within the study area record water temperature or profiles at several shallow and deep sites.

**3** Record the species present at each sampling site based on observation from the boat. Use an underwater viewer and rake sampling to obtain supplementary information.

**4** Identify plants on-site or retain them for later identification. Place collected plants in sealable plastic bags along with a label providing all pertinent information. Record sample collections, a sample number, all pertinent site information, and GPS location in a note book or field sheet.

*properly  
preserve*

**5** Properly preserve in a plant press samples to be archived or included in reference collections.

Obtain semi-quantitative results by modifying the study design and field sampling procedure as follows:

**1** Conduct sampling at each sampling site in a consistent manner and level of effort. At each site, make the same number of rake drags/tosses and, if possible sample an equivalent area with each drag or toss.

**2** Determine and record the relative robustness of plant growth at each site. Include descriptors such as Dense, Moderate, Sparse and Trace.

**3** Identify the species present and estimate the relative proportion of each species for each rake sample. Record species that are present in very small amounts, perhaps only as fragments, as 'present' or 'trace' only.