



## **Installing Signs to Protect Environmental Reserves**

Environmental Reserves (ERs) are pieces of land separating private property from a body of water, flood plain, or drainage area. In adherence to the Alberta Municipal Government Act (AMGA), when subdividing land adjacent to water, a developer may be required by the local municipal government to provide these buffer zones. These strips of land then belong to the local municipal government (e.g. County, Municipal District, Summer Village, etc.). ERs must be at least six meters wide and can be much wider. The AMGA states that the purpose of the ER is to (a) prevent pollution of the water body, and to (b) provide public access to and beside the bed and shore of the water body. Creating an ER is an excellent way to preserve shoreline habitat and protect water quality.

The ER can be protected from damage by a by-law. The by-law will stipulate what sorts of activities can/cannot occur on the ER, whether Municipal Government permission is required, and what monitoring and enforcement of ER lands is in place to protect these ERs. In most cases, owners of private lots are aware of where their property ends and the ER begins, but sometimes they do not. To make matters clear for both the municipal government and the private landowner, it may be advantageous to place identifying signs at the edge of the ER. These signs can be placed in front of the corner pins of each lot to delineate the approximate location of the ER boundary and the lot.

The municipality can design any kind of sign to do this. In recent years, a number of municipalities in the province have used a common sign for this purpose. This sign states the purpose of the ER and gives a short notice that alteration of the ER, without permission, is not allowed. It includes a phone number where inquiries can be directed and notes that removal of the sign, without permission, is not allowed.

ER signs can be made of anything durable. Currently we are using 8 inch long x 3.5 inch wide painted metal signs (see attached figure) pop-riveted to galvanized U-channel posts. The municipality chooses the colours used.

Installing the signs is not difficult, but it does take time. Generally, it is best if two people work on the project. The municipality could consider hiring summer students to do this job. They can apply for Federal SEED or STEP (<http://youth.hrhc-drhc.gc.ca>) money to put towards the salaries of these students. Or the municipality could allocate some of the time of existing employees to this job. The municipality could also advertise for volunteers to help with this task. Members of senior's clubs, the lake association, the local Fish and Game Association, or members of other local natural history clubs, etc., may be willing to offer their time to this project.

### Prepare to install ER signs:

- Send a letter to all lakeside residents who will have ER signs placed adjacent to their properties. Inform them that a municipal crew will be installing these signs, when, and the reason for doing so.
- Put a notice in the local newspaper stating the same information.
- Get the sub-division plans for the areas to be signed and reduce them to a convenient size for carrying in the field. These should be proper surveyor's maps with the environmental reserves labelled, and all reserve depths and lot widths recorded.
- Have the signs made. Have the manufacturer drill the holes in the signs. (From the maps, determine how many lots there are. If you are installing the signs by the two front corner pins of each lot, take the number of lots, plus one, to get the number of signs needed. Order some extra signs for later replacement of lost or damaged signs.)
- Order the posts. (Order some extras for replacements.) Posts may be 5 feet or 6 feet long, depending upon the height you want the sign to be and the nature of the substrate they will be placed in. Hard rocky soil requires less post to be pounded into the ground for stability than does soft, boggy soil.. In the posts, with the sign level with the top of the post, have the post manufacturer drill one of the corresponding holes to the accompanying sign. Do not have them drill both holes, as quality control is hard to maintain here. You will have to drill the second hole in the post. For the location of this hole, take a number of ER signs and line them up on the posts. Keep your compatible signs and posts in lots after you have drilled the posts.
- Get a sleeve-hammer that will be used to pound the posts into the ground.
- Get a pop-rivet gun and the proper sized rivets for attaching the signs to the posts.
- Get pens, a compass, measuring tape, and a pin-finder for finding property pins.
- Supply the installers with an information sheet that can be handed out to "concerned" residents. This sheet should include the name/number of the municipal government representative they can call, if they have questions that the installers cannot answer.

### Installing ER signs:

- To determine where the ER is, find the property pins (at the front corners of the property, where the private property ends and the ER begins). Note: most property pins are metal, but some can be wooden stakes.
- Use the sleeve-hammer to place the post on the ER. Be careful not to deform the top of the post when pounding them in. With the rivet gun, attach the sign with the writing facing the private property.
- Do not attach the sign to the post before installing the post, as the concussion from pounding in the post will just dislodge the sign.
- If you cannot find the property pin, you can determine approximately where the pin should be by using one or both of two steps. First, from the surveyor's map, note the width of the lot front and the bearing of the property line to the next pin. Use a compass and a tape measure to trace that line onto the ground to find the

approximate location of the next pin. Second, find the legal bank of the lake (the usually visible, normal high water mark) and measure towards the private property the number of units (the depth of the ER) on the surveyor's map. The intersection of these two lines should be close to the property pin. If you are starting from a known pin, and if you are practised with a compass, usually just the first line is close enough. Often, the property line between two lots is marked by a hedge, removed trees, or other indicators that will tell you where that boundary is. So, on an extension of that line, by measuring the depth of the ER landward from the legal bank of the lake (the normal high water mark), you should arrive close to the location of the corner pin of those two lots. Err on the side of caution. Step lakeward from your estimated pin location (approximately three feet) and place the sign on the ER. Do not give away too much, as some people may assume that the ER starts where the sign is placed and claim everything up to it. Also, on the survey maps, two lots may be shown, but they may be treated/sold/developed as one lot. Consider this when installing your signs.

- You can use an ATV to carry the material, but it is not necessary.
- Clear the brush around the installed sign so that it is visible. You may also spray a bright orange paint on the ground around the post, to draw attention to the sign.
- Record (on the surveyor map/GPS) the location of the signs you have installed. It may save a headache later on. You may also want to record any instances of ER encroachment.

After the ER signs have been installed, there is little maintenance required. Properties should be walked annually to check on compliance to the ER by-laws and to replace missing signs.

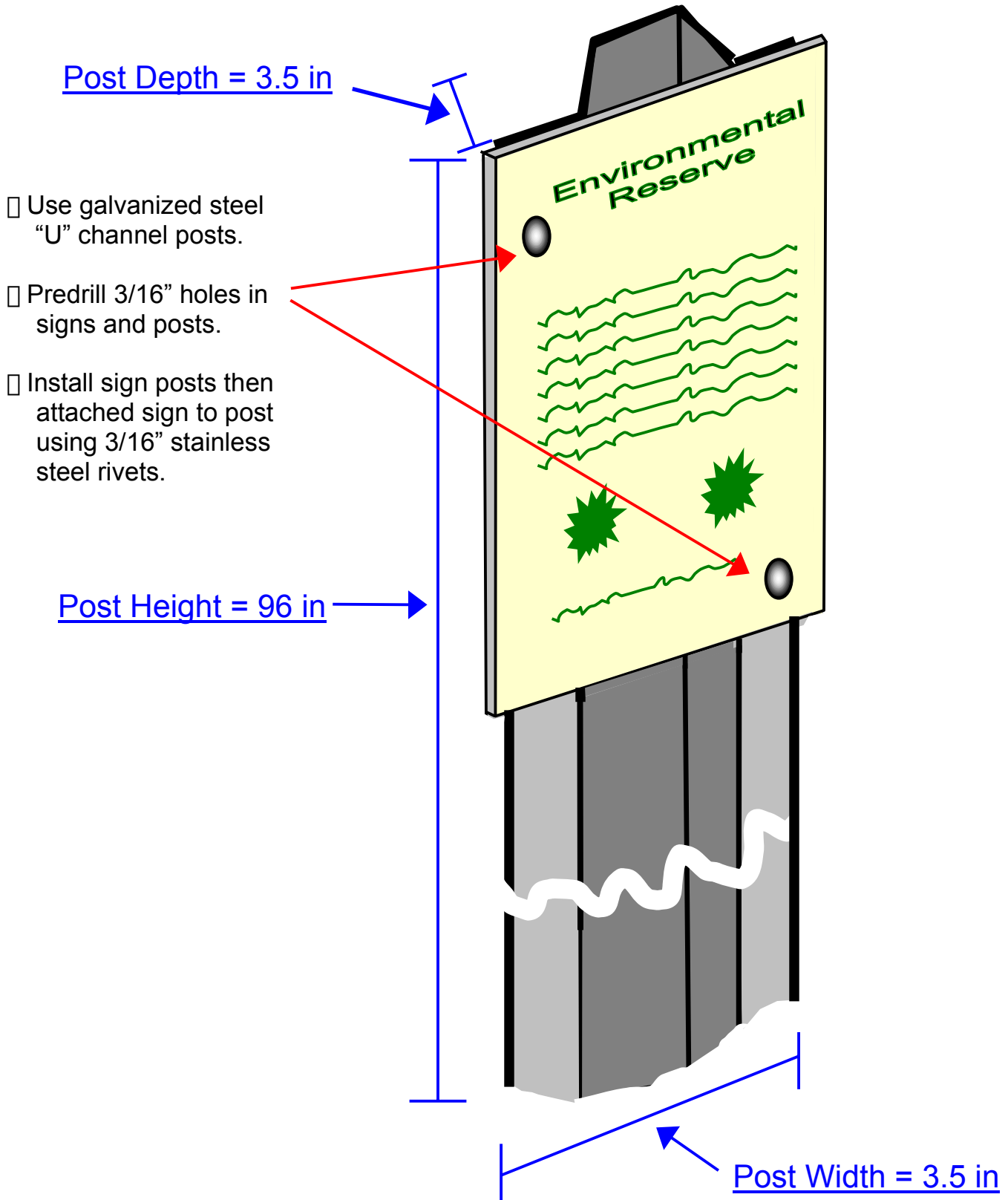
Note: Consider placing public information signs at major access points (winter and summer) to the lake, so that people who use the lake (back-lot owners/ visitors, who are fishing, snowmobiling, quadding, etc.) in addition to the cottagers with lakefront property, know what the ERs are all about. Examples of an ER sign and of the larger public information sign are attached to this fact sheet.

## Environmental Reserve Sign Design

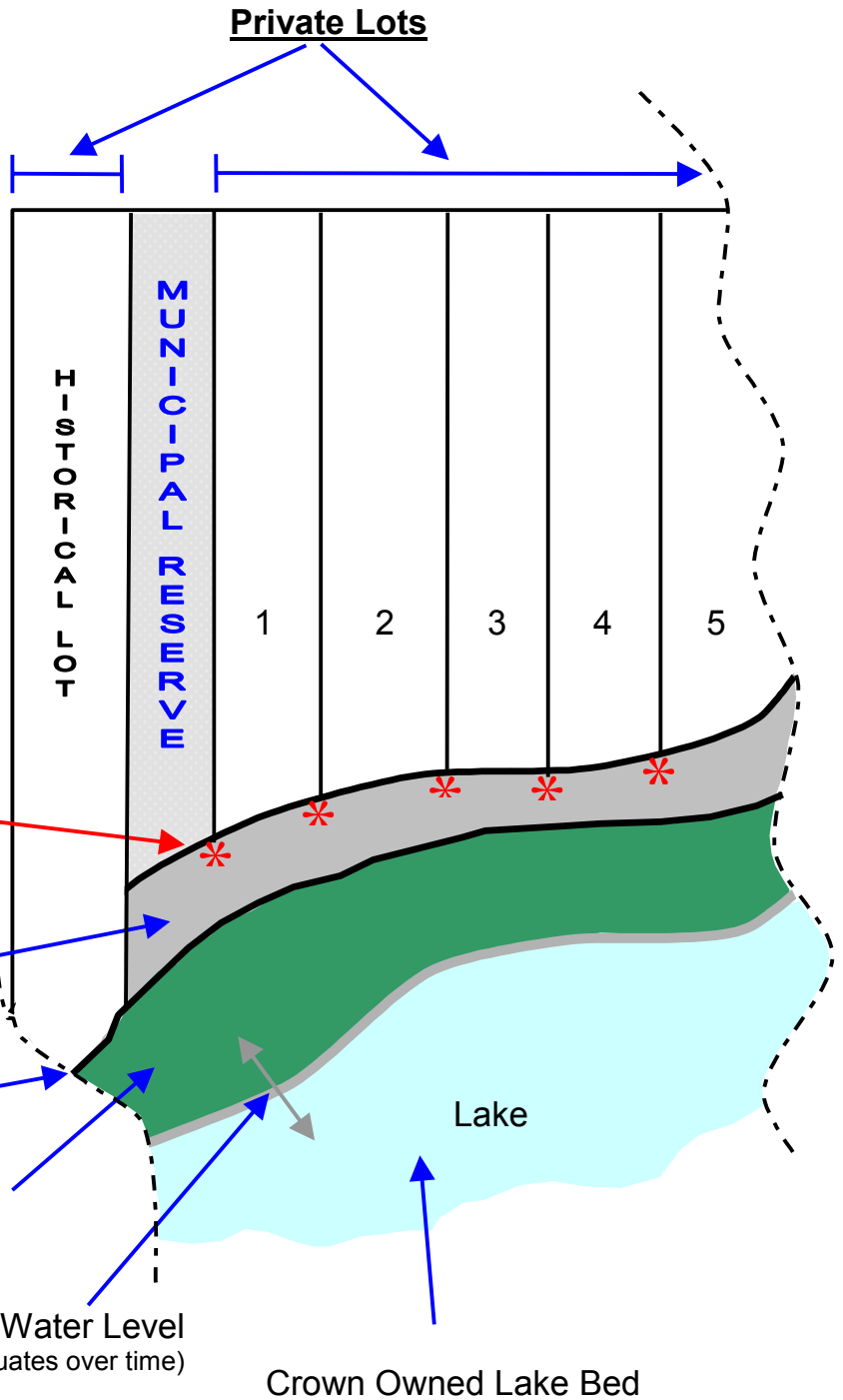
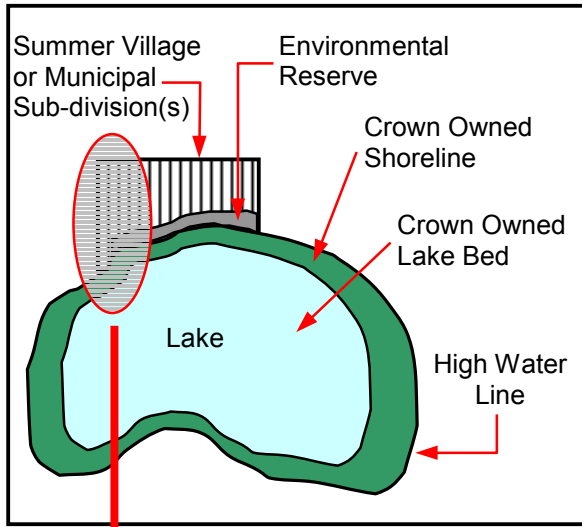
- Sign Material = Aluminum
- Predrill 3/16" holes in signs and posts.
- Sign colors (contrasting). Example shown is eggshell background with dark green lettering.
- Print sign using your Municipal Governments name, contact telephone number and logo.
- Insert Logo(s) of participating groups.
- Install sign posts then attached sign to post using 3/16" stainless steel rivets (see next page).



# Sample of Environmental Reserve Sign and Post Assembly



# Generalized Map Showing Environmental Sign Installation Locations



**Recommended locations for ER Signs**



# Example of an Environmental Reserve Public Information

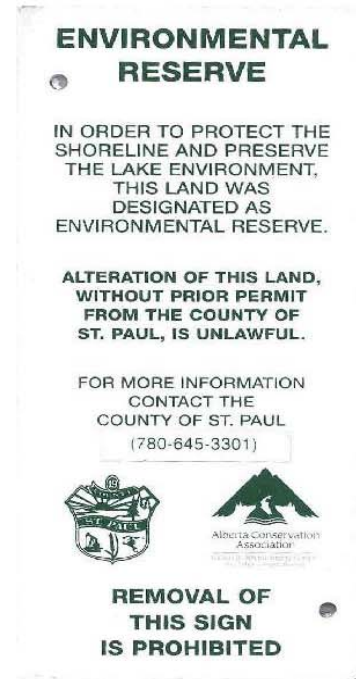
## County of St. Paul

### Signage Program for Environmental Reserves

In co-operation with the *Vincent Lake Working Group* the County of St. Paul will be placing signs (as shown on the right) that will help adjoining lot owners locate the **Environmental Reserve (E.R.)** adjacent to their property.

Where property pins were easily located, the E.R. signs are placed near the pins. In some cases, where the property pins were not easily located, the signs are located within the E.R.

It is the responsibility of the adjoining property owner to know the location of the Environmental Reserve. You must have approval from the County of St. Paul at (780) 645-3301 prior to undertaking any developments or alterations in the Environmental Reserve.



### What is an Environmental Reserve

- An Environmental Reserve is:
  - a strip of land owned and administered by a municipal government,
  - usually not less than 6 metres in width,
  - found between subdivided land and the bed and shore (i.e., public land) of any lake, river, stream or other body of water,
- The purpose of an Environmental Reserve is to:
  - prevent pollution (such as silt, sewage or fertilizers) from entering the waterbody,
  - provide public access to, and beside, the waterbody's bed and shore,
  - According to Alberta's *Municipal Government Act*, any proposed subdivision must provide an Environmental Reserve alongside a waterbody,
  - Historically, Environmental Reserves were not required when early subdivisions were developed.

