

Chapter 20

Accretions and Erosions

Forces of nature and human activity have altered the waterways surrounding reserves since the time of original reserve allotment. Some examples of events that have had a significant effect on waterways around reserves are: normal sediment transfer, seasonal flooding, dyking, irrigation works, and fluctuating water levels caused by logging or hydro-electric installation activities. In some cases, Indigenous Peoples have been



Accretion and erosion are complicated natural processes that can affect reserves (Photo: Wade Grant 2005)

forcibly removed from our reserves as a result of changes in water levels or the course of waterways caused by one or more of these problems. This chapter will help you research any changes to the waterways around your reserves. It discusses two important issues, accretion and erosion, and lists resources to consult. **Accretion** is an increase in landmass, such as an increase to land adjacent to a body of water. **Erosion** is a decrease in such landmass.

Researching an Accretion or Erosion

There are several different issues to look into if you are researching an accretion or erosion. These include:

- Determining what caused the change and if any actions elsewhere caused or contributed to it. You will want focus your attention on examining events nearby, such as upstream if it is a river or stream.
- The scale and nature of the change (i.e. if damage was caused, how much).
- The rate of the change (i.e. if the accretion was a gradual and barely noticeable addition to land through natural causes and if your community is able to live with it).

The steps for researching these issues areas are listed below. For more information on the documents listed here see Chapter 4: Documents. You may also want to refer to Chapter

19: Water, Riparian and Foreshore Rights. If you are researching accretion you should know that, whatever the cause, an accretion to reserve land does not mean the automatic inclusion and incorporation of the new, accreted parcel to the existing reserve. The community will have to take special measures to get accreted land added to its reserve land base.

Collecting documents and other evidence

If you are looking into a potential accretion or erosion issue, and the accretion or erosion is adjacent to reserve land, investigate the history of the issue, paying special attention to maps, surveys and aerial photos over time.

- Collect historic and contemporary maps, surveys, and aerial photos. See Chapter 10: Maps and Surveys for more information.
- It may be appropriate to obtain oral testimony from community members who have witnessed the effects of the erosion or accretion.
- Check to see if there are any relevant archived Indian Affairs records. These records will be in Record Group 10 (**RG 10**) at the Library and Archives Canada (LAC).
- Check to see if there are any relevant active Indian Affairs records.
- You may also wish to review active or archived BC Ministry of Lands files at the BC Archives or the BC Surveyor General Branch.
- You may find information in provincial Department of Public Works records or municipal records at the BC Archives.
- If you are investigating logging, mining or hydroelectric development, you probably will have to consult relevant corporate records, if they are available.

You may also want to consult the following chapters in this manual for help conducting your research:

- Chapter 6: Oral History offers detailed information about interviewing community members. There is a good chance that Elders or other community members might have some of the answers you are looking for. It is always a good idea to start your project in your community and talk to as many people as possible about the issues you are researching.
- Chapter 8: Anthropology Resources discusses studies and theses that deal with the subject of Indigenous land use and occupancy patterns in BC. See this chapter for information on how to gain access to materials that may include information about land use and occupancy. See also the UBCIC-Ecotrust Canada publication, *Chief Kerry's Moose: A Guidebook to Land Use and Occupancy Mapping, Research Design, and Data Collection* (2000) by Terry Tobias.
- Chapter 9: Archaeology Resources outlines how to locate studies of recorded archaeological sites. It is a good idea to check to see if the erosion caused any damage to archaeological sites in your territory.

Examining documents

Carefully compare the documentary record that you compile against historic maps, surveys and air photos. Look for photographs that clearly show the effects of the erosion or accretion. It will be critical to establish when and why the erosion or accretion began.

You should also establish when Indian Affairs learned of the problem and what measures, if any, were taken. For erosions, you will also want to accumulate evidence of how the eroded land had been used historically, and what the loss of this land has meant.

Obtaining a technical assessment (if necessary)

Much of the information you gather for this kind of research project will be highly technical in nature. Once you have uncovered the basic documentary and cartographic (map) history of what happened, you may need an expert technical assessment, either to supplement your research or to help lay out options for proceeding. This could involve a **hydrologist** (an expert on the movement of water in relation to land), a **photogrammetrist** (an expert in interpreting the forestry data from aerial photos) or some type of soil or vegetation specialist, among others.

If a decision is made to obtain expert technical help you should look around carefully. Ask for referrals at a university geography department, your tribal council or other Indigenous communities in your area. Erosion issues usually affect an entire region so your neighbouring communities may already have had some technical work done and they may be in a position to recommend (or advise against) a particular expert. Try to get several recommendations, then arrange at least one exploratory discussion with all potential consultants (at no charge to you) to help determine if the individual in question is appropriate for the specific job you have in mind. Expert technical help is expensive so it is highly recommended that you take the time to find the most qualified and helpful candidates available.

