

## **Chase River Watershed**

### **What's Happening**

In celebration of their 25th anniversary in 1997, the Nanaimo Field Naturalists (NFN) adopted the Chase River to help protect and restore the vegetation along its length. This project, partially funded by Urban Salmon Habitat Program also includes increasing landowner awareness of small urban streams as fish-rearing habitat and of the role streamside vegetation plays in these streams. The NFN also hope to encourage landowners along the Chase River to take an active role in restoring riparian vegetation. By supplying information, advice, plants and 'helping hands', the NFN will provide support to local residents interested in having a positive impact on the Chase River and in making a change for the better!



### **The Chase River**

Chase River is approximately 11 km long with headwaters on the slopes of Mount Benson. It flows through Colliery Dam Park and Harewood neighbourhoods into the Nanaimo River estuary. The watershed area of this river is roughly 25 square km. The Chase River is one of Nanaimo's most productive urban waterways. Chum and coho salmon use the lower 4.5 km for spawning and rearing, as do rainbow and cutthroat trout. These same reaches of the river flow through residential areas as well as municipal park and school district property, forming a greenway corridor for wildlife and people. However, there are major problems facing the river such as bank erosion, loss of streamside vegetation, garbage accumulation, changes in drainage patterns and storm drain discharge.

### **How Can I Help?**

**Bank Erosion:** The roots of trees and shrubs hold the soil of stream banks in place. Some erosion occurs naturally, but when vegetation is removed by human activity, the banks are destabilized and soil is washed into the stream. This sediment smothers the river bottom, damaging habitat for fish and other wildlife. You lose part of your backyard and river wildlife loses its home.

**What to Do:** Leave streamside vegetation intact. Limit access to the river to avoid wearing away the banks.

**Loss Of Streamside Vegetation:** Trees and shrubs shade the water keeping it cool for fish in the summer, provide cover, and shelter fish from predators. Leaves and twigs that fall into the stream provide food sources for fish and other wildlife. When vegetation is removed, banks erode, temperatures increase, water levels fluctuate and fish habitat is lost.

**What to Do:** Preserve existing natural streamside vegetation and replant degraded areas.

**Garbage Accumulation:** Garbage such as plastic containers, tires, newspapers, batteries, metal scraps etc. can reduce water quality, damage habitat and reduce the river's aesthetic value. Logs and branches that fall naturally into the river provide important cover and habitat for fish and are not garbage.

**What to Do:** Remove human garbage from the river area, but leave woody debris in place.

**Changes In Drainage Patterns:** Replacing natural vegetation with pavement, houses and other impermeable surfaces prevents water from soaking into the ground. Instead, water runs off these surfaces very quickly into storm drains, ditches and the river, without the filtering and buffering effect that soil and vegetation provide, thereby reducing water quality and quantity.

**What to Do:** Pave as little as possible; use gravel, loose bricks or flagstones instead. Use rain water from your roof to water yards and gardens.

**Storm Drain Discharge:** In urban areas, storm water runoff into streams frequently carries gas, oil or other materials toxic to fish. Sediment from upland development often finds its way into streams and can smother fish eggs and reduce rearing habitat for young salmonids.

**What to Do:** Keep substances like paint, thinner, furniture stripper, or oil and sediment out of roadside

drains. Reduce the use of pesticides and fertilizers. Use approved sediment control methods when developing near a watercourse.

### **What's In Store For The Chase River?**

#### **It's the year 2020...**

The Chase River floods its banks again. It happens every time there is a storm. The banks are eroding and your property is shrinking. The children know to stay away from the river. When it's not flooded, the banks are soft and crumbling, and you're afraid that they will fall in. In the summer, the river dries to a trickle, but you wouldn't let the children play in it anyway. Who knows how safe it is, with all the garbage that is thrown in there? It's hard to believe that salmon once spawned here.

**OR...** You sit in a lawn chair beside the Chase River, enjoying the shade provided by alder and cedar trees planted years before. Your children are trying to catch crayfish, and the youngest brings you a freshwater mussel shell to admire. Just downstream a heron stalks juvenile coho, reminding you of last fall's salmon swimming upstream to spawn. You have a feeling of pride and satisfaction in the work you and the community did to ensure the beauty and productivity of the river.

Whatever it may look like, achieving a positive future for the Chase River means working together. It means restoring streamside vegetation, removing garbage, and controlling the quality and quantity of water that drains into the river from the surrounding land. With the help of the City of Nanaimo and community groups and by working cooperatively, we can restore and maintain a healthy Chase River!