



Big Ideas* Growing Here

Idea #01: 'Get real about climate change.'

Warmer *and* snowier? Say what?

Climate change doesn't always face us in the ways we expect. Here in the Cowichan region for example, a warming world will very likely mean more super-heavy dumps of winter snow.

Say that again?

Yup. A warmer atmosphere can carry and drop more water. U.S. scientists measured a nine per cent increase in worldwide snow and rainfall in less than a decade and a half leading up to 2006. But the weather continues its day-to-day swings even while the overall climate shifts—and on some winter days the temperature will still drop below freezing. Only when it does, there's now an increased chance the air will be extra-saturated with water—ready to fall as an unusually heavy dump of snow.

A warmer globe leads to wetter air leads to heavier snow days when the mercury goes down too far. So, yes: warmer *and* snowier.

That's just one surprising impact we're already experiencing from a changing climate. Another is that despite the occasional heavy snow, winters on southern Vancouver Island have gotten much drier over the last half-century. Springtime has become wetter. Overall, our water 'income' hasn't changed much compared to some parts of the province that are getting 50% more rain and snow now than a century ago. But more precipitation is arriving all at once: not just heavier snow but more intense rainstorms, with longer dry periods in between.

Other changes may be less

apparent to people but very noticeable to plants and wildlife. Summers feel longer, hotter and drier: great beach weather but increasing stress on crops and threatened vulnerable ecosystems like remnant Coastal Douglas Fir stands.

These changes pose practical challenges. Heavier rainstorms may overwhelm drains, resulting in increased flooding. Drier summers mean our growing population and agricultural industry more often compete with nature for available water. Choices we make in managing the Cowichan's landscape, from how we log to the way we treat natural flood zones, will have profound consequences for how we adapt to the changing climate.

The one thing we can't afford to do is sit back and pretend nothing's

changing. The evidence is in and the forecast is clear. Much of the world faces wrenching climate change. But few places are as fortunate as we are in the Cowichan, or better placed to weather what's ahead. Many groups and organizations are already rolling up their sleeves to tackle various aspects of the challenging transition to a new climate.

Your CVRD Environment Commission is helping the Cowichan prepare for the future. But we're all part of the change we need to create. What are your thoughts?

Follow what we're doing here or online www.12things.ca, and let us know what you think at 12things@cvrdiviro.com.

'Emissions' vs 'effects':

The CVRD and member municipalities have pledged to reduce our region's greenhouse gas emissions. But today's greenhouse emissions will take years to influence climate. Changes in the weather we'll encounter over the rest of the decade have already been 'baked in' to the atmosphere by past emissions. Learn more about how climate change is affecting the world now at <http://climatesignals.org/>. And see how our climate on Vancouver Island is changing at <http://web.viu.ca/earle/geol-412/agriculture.pdf>.



* In 2009, residents of the CVRD overwhelmingly endorsed the '12 Big Ideas' vision for a Cowichan region that will support a growing population, adapt to a changing climate, and preserve its natural wealth for future generations.

