

identifies planetary thresholds of potential catastrophic change. Three of these have been breached: biodiversity, carbon dioxide levels and nitrogen pollution. Currently two more thresholds are close to being breached: ocean acidification and phosphorus levels in freshwater. However, there is still hope if decision makers take action to protect nature. bit.ly/Fminus

Mine? Ours!

BC The Tsilhqot'in First Nation are set to establish the Dasiqox Tribal Park, an area of about 3,120 km² west of Williams Lake, BC. The park includes the site of the controversial New Prosperity mine at Fish Lake, a project the Tsilhqot'in long opposed because of their claim to hunting, fishing and trapping rights. Earlier this year the Supreme Court ruled that they have title to 1,750 km² of land, and although the Fish Lake site lies outside this area, they consider it to also be part of their sovereign territory. Questions have been raised as to both the validity of the tribal park and the future of the copper-gold mine project. Meanwhile, the area contains a unique forest ecosystem and some of the best large-carnivore habitat in North America. Large-scale industrial mining and clear-cut logging will not be allowed in the tribal park, but small-scale sustainable logging would provide employment for First Nations members. Although the province has approved the mine project, the federal government has rejected it twice. bit.ly/MinePark

Smart Villages

MALAYSIA Malaysian innovators have come up with plans for modular urban communities with affordable homes, food security, and sustainable jobs aimed at solving the growing global problem of city slums. The communities are modelled on Malaysia's successful "smart villages," which have improved the prospects of several hundred rural families while upholding environmental sustainability goals. Designed by IRIS Corporation and presented at the New York Academy of Sciences, each two-hectare site will provide housing, educational/community facilities and employment opportunities. Fish tanks for aqua farming and water efficient greenhouses will also be on site. This system will optimize nutrient absorption, and enable crops to be grown in previously non-arable land. Each urban community is designed to lift 160 families out of extreme poverty. The smart village concept has also been adopted in Africa. bit.ly/SmartVillage

— Michelle Thompson and Elise Marion



JAMES WHEELER | FOTOLIA

BC Floats New Water Law

AFTER AN EXTENSIVE DEVELOPMENT PERIOD, the British Columbia provincial government introduced Bill 18 – *Water Sustainability Act* (WSA) into legislature this spring and it received royal assent in May. While it is now officially law, the WSA will not come into force until next year, after certain details have been finalized and particular regulations developed. The new WSA represents the culmination of six years of consultation to modernize the previous *Water Act*, which was over 100 years old and sorely out of date. The WSA is ushering in a potentially new and exciting era of water stewardship in BC based more on the concept of protection than on rules for resource extraction.

The former *Water Act* was a relic from a bygone era when the province was largely focused on the needs of settlers, miners and loggers. Creating certainty for investment to kick-start a resource-based economy was top priority. Fast forward 105 years and BC is a different place. Now, water is acknowledged as critical to our future by almost all sectors, and across the full political spectrum.

The WSA is the critical first step to ensuring better, and regionally appropriate, protection for environmental flows, water planning, groundwater licensing, and incentives for improving efficiency and promoting conservation.

Its full implementation will hinge on passing a suite of important regulations. The first batch is expected in the coming year and will focus on administrative aspects and the new groundwater licensing regime, which will bring the legislation into force. Before Bill 18 was passed, BC was the only jurisdiction in Canada that didn't regulate groundwater use.

Other key regulations will focus on enabling local water sustainability plans and shared decision making, defining "beneficial use" in a way that promotes conservation, and protecting environmental and critical flow needs to keep fish alive and thriving.

The WSA is a big and complicated piece of legislation, and many of the details have yet to be worked out. However, one significant missed opportunity was not updating BC's archaic "first-in-time, first-in-right" system of water allocation. The province could have entrenched the public trust doctrine as a guiding principle and, in so doing, ensured that water remains available for the environment and communities now and in the future. Addressing First Nations water rights is another area of grave concern; the new legislation continues to vest water in the Crown and remains silent on acknowledging the fundamental rights and title of First Nations. Many First Nations are not satisfied and require a more committed approach to genuine government-to-government engagement and co-governance going forward.

Despite these shortcomings, the WSA does offer a real opportunity to begin moving toward a more sustainable and resilient future. British Columbians really do care about water, and freshwater will be what defines prosperity for the coming generation in the province and beyond. — Oliver M. Brandes and Laura Brandes