

AFTER THE HARVEST:

Towards a Sustainable Okanagan?

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WHEN I MOVED FROM VANCOUVER to Naramata forty years ago, the Okanagan Valley offered a cornucopia of delights. A veritable Garden of Eatin', it seemed to be a place with intact communities, a thriving economy, and strong "family values." The 120-kilometre span of Okanagan Lake linked northern dairy farms in Armstrong and Spallumcheen to the ranches of the Similkameen. And while cherries, peaches, and apples tumbled from orchards, this bountiful valley contained more biodiversity than any other Canadian region of comparable size.

Until the 1960s, the Okanagan-Similkameen had been a largely rural society with only three small towns – Vernon, Kelowna, and Penticton – and a scattering of smaller villages. But by the early 1970s, the region was on the cusp of change. Urban growth and the development of a service economy both signalled and hastened transition in agriculture, most notably the decline of the tree-fruit industry. As the town centres jockeyed for position, new Okanagan College campuses cropped up from Salmon Arm to Penticton, imposing a semblance of regional unity.

Thirty years later, the completion of the Coquihalla Highway and the establishment of UBC Okanagan had reinforced Kelowna's ascendance in population and amenities. Between 2001 and 2031, population in the Central Okanagan is expected to grow by 40 percent.¹ Indeed, the number of people in the entire Valley increased rapidly through the last years of the twentieth century. As Environment Canada reports: "The Okanagan has experienced dramatic ... growth from 210,000 in 1986 to 310,000 in 2001. The population is expected to continue to rise rapidly, reaching nearly 450,000 by 2031."² The Okanagan Valley, third

¹ BC Statistics, Ministry of Labour and Citizens' Services, P.E.O.P.L.E. (Population Extrapolation for Organizational Planning with Less Error) 31 May 2006. Available at <http://www.bcstats.gov.bc.ca/data/pop/pop/Project/P31BCIntro.pdf> (viewed 30 November 2010).

² Stewart J. Cohen and Tina Neale, eds. *Participatory Integrated Assessment of Water Management and Climate Change in the Okanagan Basin, British Columbia* (Vancouver: Environment Canada and University of British Columbia, 2006), 21.

largest concentration of population in the province, is fast-tracked for continued growth and prosperity.

But the pace and character of change have generated adverse consequences as well. Declines in air quality and biodiversity accompany increased urbanization. Water for residential and agricultural use is limited in many communities. Route 97 steamrolls north and south in a four-lane ribbon of urban sprawl. Mountain pine beetles infiltrate lodgepole pine forests, diminishing timber returns and intensifying fire hazards. If the Okanagan boasts greater social diversity in 2011 than it did in 1971, emerging demands for health care, First Nations governance, work, education, and seniors' services compete for resources vulnerable to fiscal restraint.

In British Columbia we occupy a landscape more recently colonized and affected by industrial activity than most in the developed world. This presents unusual opportunities to plan for the future. If the Okanagan's aridity, rugged landscape, and agricultural land use shaped a slower pace of growth in the past, these attributes are commoditized today to attract development and tourism. Regional districts and research agencies are expected to anticipate and plan for change. At this critical juncture it is important to ask just how effective sustainability initiatives may be against demographic, institutional, and economic pressures.

The notion of "sustainability" is derived from *Our Common Future*,³ the 1987 report of the United Nations World Commission on Environment and Development (WCED). Headed by Grø Harlem Brundtland, prime minister of Norway, the WCED articulated a policy framework that can be adapted to consider Okanagan futures. "Sustainability" evaluates the potential of future generations to continue to inhabit this planet without being jeopardized by past practices.⁴ From this perspective, we can ask if and how the Okanagan Valley can function in the future to support humans and other species. Is growth inevitable? And if so, in what ways? When and how will it stop?

On an afternoon in July, more than two decades after the publication of the Brundtland report, I gaze across Okanagan Lake to Summerland. Four lanes of traffic on Highway 97 rush beneath recent scars of exfoliated rock face; below them, on the lake, noisy powerboats trail water-skiers like lures on a fishing line. These days it's difficult to find quiet, even

³ Grø Harlem Brundtland, *Our Common Future* (New York: Oxford University Press, 1987).

⁴ "Sustainable development" meets the needs of the present without compromising the ability of future generations to meet their own needs. The term "sustainability" has since been adopted by many observers, both for its brevity and for the association of "development" with growth, international development, and global inequality.

at this remote cabin tucked beneath Okanagan Mountain. And, in my brief tenure here, I have observed a sharp decline in the wildlife – meadowlarks, nighthawks, rubber boas, and Western skink – that marked my early years. I rarely hear the gurgle of the canyon wren; few rattlers chatter at my door.

Keeping sustainability in mind is made difficult by both ideological and practical concerns. For conservatives, government intervention in land-use practices, whether through the restriction of land use or the creation of protected areas, is suspect. Critics on the right are wary of state intervention, especially in an era of laissez-faire expansion. Positive-thinking marketeers also tend to dismiss more cautious forward-looking observers as “doomsayers,” thereby restricting critical dialogue and change.

From the other side of the political spectrum, it seems that a genuine opportunity to achieve sustainability is stymied by a market context in which reverence for individual choice, opportunity, and growth subverts the very idea of a steady state economy.⁵ Those on the left also observe that development typically favours some interests at the expense of others. The gentrification and “lifestyle marketing” of urban downtowns throughout North America is a case in point. “Sustainability” green-washes development.

Ideology is not the only issue. Projecting future societies is a complex and difficult task relying on a range of perspectives, techniques, and processes. The models and forecasts used by the Club of Rome and more recently, those used by climate-change scientists have been hotly debated.⁶ Some argue that change will intensify existing trends in a linear fashion; others argue that, while some changes advance arithmetically (e.g., the conversion of raw land to agriculture), certain factors (e.g., science, technology) trigger geometric progressions with steep uphill curves.⁷ The effects of these exponential changes (e.g., population growth, resource consumption, environmental degradation, energy shortfalls) may be especially difficult to mitigate. The “known unknowns” – such as climate change, spikes in immigration, roller-coaster populations, and technological innovation – all stand to confound simple projections.

By what standards can we “predict” and assess the quality of life in the future? Popular invocations of “sustainability” assume maintenance of

⁵ Herman E. Daly. *Steady-State Economics*, 2nd ed. (Washington: Island Press, 1991).

⁶ The Club of Rome and its publication, *The Limits to Growth* (New York: Universe Press, 1972), are foundational to sustainability studies. Founded in 1968, this group convened to study resource limitations within an increasingly interdependent and finite world.

⁷ As Thomas Malthus pointed out more than two centuries ago in *An Essay on the Principles of Population* (London: J. Johnson, 1798).

the standard of living to which we are presently accustomed (at least if we are among the more fortunate of the world's peoples). In comparison, we might attend to Vancouver sage Douglas Coupland prediction for the next decade: "Expect less. Not zero, just less." This perspective reflects not only current fiscal uncertainty, but the cumulative impacts of globalization, resource consumption, and "overshoot."⁸ For those already experiencing post-millennial economic restructuring, there is some urgency to the question, "What *are* the basic requirements for living a 'good' life?" We often neglect to frame this question with analytical precision: Over what time period? A century? The next millennium? Do we want to sustain the current level of living? And, if so, whose? First Nations in Westbank or Enderby? Three-year-olds in Oyama? Eighty-three-year-olds in home care in Oliver?

Another issue for sustainability is scale. Can we discuss sustainability in the Okanagan without acknowledging our embeddedness in a global economy? Bill Rees argues that our "ecological footprint" already exceeds not only local but also planetary carrying capacity. By sourcing goods and consumption globally, our imports from other countries "expropriate" others' ability to subsist from their own local economies.⁹ And as global populations escalate, Canada's role as a site of immigration will likely increase. What biological impacts on this region will accompany this increased growth?

For all that, the concept of sustainability provides a useful means of examining our current tenure practices. Adaptation will not be easy to achieve. Studies on climate change, for instance, have linked adaptive capacity to wealth; population, education, and health; organizational arrangements and institutions; access to technology; and equity.¹⁰ Our efforts will undoubtedly be constrained by difficulties in one or more of these areas. By paying attention to the future, we can, nonetheless, heighten attention to our impacts on the ecological systems on which we rely.

⁸ Douglas Coupland, "Predictions of a Radical Pessimist," *Globe and Mail*, 10 October 2010. William Ophuls, *Ecology and the Politics of Scarcity* (San Francisco: W.H. Freeman and Co., 1977), uses the term "overshoot" to describe our ability to exploit resources beyond their ultimate ability to sustain life, their "carrying capacity."

⁹ William E. Rees, "Ecological Footprints and Appropriated Carrying Capacity: What Urban Economics Leaves Out," *Environment and Urbanization* 4, 2 (1992): 121–30.

¹⁰ Barry Smit and Olga Pilifosova, "Adaptation to Climate Change in the Context of Sustainable Development and Equity," in *Climate Change 2001: Impacts, Adaptation, and Vulnerability – Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change*, ed. J. McCarthy, O. Canziani, N. Leary, D. Dokken, and K. White, (Cambridge: Cambridge University Press, 2001).

POPULATION AND DEMOGRAPHICS

Significant demographic changes in the past half-century -- urbanization, population increase, aging, and diversity -- drive current concerns over sustainability in the Okanagan. At the millennium, settlement and growth have been enhanced by transportation networks, an amenable climate, and resource abundance. The Okanagan Valley's linear settlement along an attenuated lake system is trisected by three regional districts, with populations (2009) ranging from 83,179 in the North Okanagan to 184,411 in the Central Okanagan and 83,337 in the Okanagan-Similkameen -- a combined population of 350,927.¹¹ The Central Okanagan, including Kelowna, has experienced the most dramatic growth in recent decades, with an annual rate of 2.6 percent. The cumulative effect of this growth has been to place significant demands on services, housing, and land.

Where pack trails and Okanagan Lake once directed transportation north and south, Highway 97 now fills that role. The stream of traffic up and down the Valley and between communities reflects the relative ease of inter-urban commutes, but fragments the landscape and is ecologically disruptive. Agriculture -- orchards, co-ops, and packing houses -- no longer acts as a centripetal force, and, as the cost of housing and land escalates, people drive farther to work, school, and shopping. With the new (2008) Kelowna bridge, the sub/urban sprawl of Westbank has mushroomed with new residential and commercial development. Driving south from Kelowna these days, Old Macdonald's Farm and the water slide fade like relics of the distant past.

The Okanagan is growing in social diversity as well. An aging population requires appropriate health care services, transportation, and housing (while many of the region's young people continue to migrate to Vancouver for work and other amenities).¹² Issues of social equity are related to British Columbia's relatively high cost of living and low minimum wage. According to First Call, a child and youth advocacy group, British Columbia has had the highest rate of child poverty of

¹¹ Available at <http://www.bcstats.gov.bc.ca/data/pop/pop/dynamic/PopulationStatistics/Query.asp?category=Census&type=Census&type=RD&topic=Estimates&agegroup=St> (viewed 23 November 2010).

¹² Teixeira cites the Okanagan median age (42.8 in Kelowna, 44.5 in Vernon, and 47.3 in Penticton) as older than the provincial average of 40.8. See Carlos Teixeira, "Housing Immigrants and Newcomers in Central Okanagan, British Columbia," Metropolis British Columbia, Centre of Excellence for Research on Immigration and Diversity, Working Paper Series No. 10-03, March 2010, p. 10.

any province for the past seven years.¹³ The low provincial minimum wage, paid to many workers in a service economy, remained set at eight dollars per hour between 2001 and 2010, in spite of increases in the cost of living. Trends of economic polarization and reduced social resources are likely to continue to be an issue in the Okanagan, as they are in other urban areas.

While the presence of visible minorities in the Okanagan has lagged behind other regions, this is also changing. As Carlos Teixeira notes, the immigrant ratio of 12 percent (Vernon) to 15 percent (Kelowna) and 16 percent (Penticton) is significantly lower than the provincial composite of 25 percent.¹⁴ First Nations' profile is visible throughout the Valley, although different bands pursue quite different development strategies. Facilities such as the En'owkin Centre in Penticton promote First Nations language and tradition throughout the region. The Nk'mip development at the south end of the Valley (including a winery, resort, and cultural centre)¹⁵ has established a successful commercial profile for the Osoyoos Band.

ECONOMIC DEVELOPMENT

In recent decades the economy of the Okanagan (like those of other regions of British Columbia), driven by technological change, resource shortfalls, and changes in international markets, has moved from the exploitation of resources to the provision of services. Among the leading service industries today are tourism (especially agro-tourism and eco-tourism), retirement services, recreation, health care, and education.

The Okanagan has been the largest fruit-growing area in Canada for the past century, but tree fruits continue to give way to grapes. Grapes require less intensive year-round maintenance and less water, especially with drip irrigation. Wine tourism upholds the symbolic association of the Valley with agricultural production, maintains the use of agricultural land, attracts tourists, produces crops and other related employment, and provides a consumable and nonperishable good.

Yet, as the wine industry and its associated promotion transform the Okanagan Valley into "Napa North," the price of land escalates,

¹³ Tamara Baluja, "Despite Decrease, British Columbia's Child Poverty Rate Still Lowest in Canada," *Province*, 19 June 2010.

¹⁴ Teixeira, "Housing Immigrants," 10.

¹⁵ See http://www.wd.gc.ca/eng/77_3233.asp (viewed 23 November 2010); See also <http://www.ainc-inac.gc.ca/ai/scr/bc/fnbc/sucsty/arihve/2004/sp04ndhc-eng.asp> (viewed 23 November 2010).

orchards decline, and biodiversity diminishes. From my vantage point above the Naramata Bench, I watch as skyrocketing land prices inspire old timers to sell out to Albertan retirees and affluent Vancouverites. Fewer families with children have led to the closure of upper grades at the Naramata School. As Bonnie, who grew up on a Penticton orchard, observes: "With all the parking and the restaurants and galleries and so on, the wineries are very much changing the agricultural ambience. The next thing that's happening ... is the onslaught of agro-tourism with changes to zoning to allow something like one-fifth of any given property to be given over to such accommodation."

British Columbia's Agricultural Land Reserve (ALR) is largely responsible for the protection of agricultural production in the Okanagan Valley.¹⁶ When the creation of the ALR was announced in 1974, many orchardists feared that their holdings, the source of potential capital for retirement, would be locked into agricultural production and thus be unavailable for residential subdivision and other non-agricultural use. Thirty-six years later, 12 percent of the land originally included in the ALR in this region has been converted to other use, whittled down by the pressures of urbanization, low administrative budgets,¹⁷ and agricultural economics.

As land prices escalate, food security diminishes and Canadians become increasingly dependent on other nations for food and markets, 'wine country' becomes more vulnerable. Maintaining the productive capacity of soil requires continuing effort. As Bonnie reflects: "I am of two minds, for until we develop a real culture of valuing local products, fruit, vegetables, wines, goodness knows ... Until farmers can afford to live on their land and pass it down to the next generation there has to be some tool for those same farm families to live and actually make a living." And, as agricultural capacity diminishes, so, too, does a form of integration that fosters community. What then will be the basis for neighbourhood? Alternative sites of integration may well include schools, choirs, churches, markets, or the Web. But a string of Tim Hortons and big box stores arguably moves us towards a homogenized Okanagan, one that lacks authenticity. We might as well be in Ontario.

¹⁶ The Agricultural Land Reserve was created in 1974 by the NDP government to support farming and to stem the loss of agricultural land to urban development

¹⁷ John Doyle, Audit of the Agricultural Land Commission. Victoria: Auditor General, 2010. www.bcauditor.com/.../2010/report_5/report/OAGBC_AgriculturalLandCommission_Final.pdf.

RESOURCES: FORESTS, WATER

Relative to many other regions of British Columbia, the Okanagan has a diversified economy, with forestry, manufacturing and construction, tourism, and agriculture the major employers.¹⁸ Over thirty-five years ago, local architect and environmentalist John Woodworth's pamphlet, *Is Everything All Right Up There?* (1975), criticized Okanagan forest practices, especially clear-cutting and forest management. Since then, changes in logging practices accompanied by projected reductions in harvestable timber have led to declines in forestry employment.

Timber supplies have been additionally threatened by their susceptibility to mountain pine beetle and other infestations. In 2007, I listened as Lorraine MacLaughlan, entomologist with the Ministry of Forests and Range, addressed a Penticton audience: "British Columbia is currently experiencing the largest recorded mountain pine beetle outbreak in North America. BC has 12 million hectares of lodgepole pine forest primarily in the Interior ... Projections suggest that approximately 80 per cent ... will be killed by 2014." While projections have decreased significantly since then, the susceptibility of interior forests to pests and fires continues to be a concern.

Okanagan timber plantations are vulnerable to fire as well as to pests. With the convergence of climate change, fire suppression policies, and increased summer temperatures, large-scale forest fires – Penticton (1994), Salmon Arm (1998), Okanagan Mountain Park (2003), and the West-side fires (2009) – threaten to hold the Valley hostage for the entire summer. Long-range forestry planning now includes increased environmental sensitivity and concern for the protection of water supplies.¹⁹ However, decreased timber capacity and the diminished administrative capacity of forestry and environmental ministries pose continuing issues for forestry stewardship.

The Okanagan Lake system is fundamental to the support of humans and other species. The quality and quantity of water are not only in-

¹⁸ Within the Okanagan, regional differences in topography, transportation, and history have resulted in different patterns in economic activity. For an overview of economic transition in the south valley, see, for example, Richard J. Cannings and Eva Durance, "Human Use of Natural Resources in the South Okanagan and Lower Similkameen Valleys," in *Assessment of Species Diversity in the Montane Cordillera Ecozone*, ed. I.M. Smith and G.G.E. Scudder (Burlington: Ecological Monitoring and Assessment Network, 1998) http://www.naturewatch.ca/eman/reports/publications/99_montane/humans/intro.htm.

¹⁹ The Okanagan Timber Supply Area has the largest number of rare, endangered, and threatened species in British Columbia, with habitat ranging over seven biogeoclimatic zones. See Economics and Trade Branch, B.C. Ministry of Forests, *Okanagan Timber Supply Area Socio-Economic Assessment*. (Victoria: British Columbia Ministry of Forests, August 1994) <http://www.for.gov.bc.ca/hts/tsa/tsa22/tsr1/22ts94sea.pdf>.

fluenced by forestry practices but also by residential consumption and use, agricultural requirements, and the disposal of human wastes. Agricultural chemicals leach into the water system, contributing to nutrient overloads. The use of herbicides such as 2,4-D to combat the spread of water milfoil was a contested issue in the 1970s, and there continues to be concern about the future quality of water. And, while the use of Okanagan Lake and its tributaries is largely regulated, knowledge of groundwater, the supply for many new homes, remains preliminary. The supply of water is perhaps the most contentious issue in the Okanagan. Some areas, such as Summerland, have already experienced summer water shortages.

In my own neighborhood, adaptations to water shortage are already under way. Coils from an old wooden pipe that sluiced water from the creek to Paradise Ranch fifty years ago decorate the old logging road like an abandoned slinky-toy. Today the ranch is planted in grapes and uses drip irrigation conveyed by buried pipes. Water licenses issued by the province are conditional on the availability of water. Streams such as Chute Creek, whose canyons slice my property, remain informally regulated. Thirty-five years ago, I included a composting toilet with a grey water system in my rock-perched house to minimize water use. Today, irrigation districts like Naramata, Oliver, and Vernon separate potable water systems from other water. Small residential subdivisions drill for well water to supply domestic needs. Decreased demand through the use of water meters and monitoring, drip irrigation, and xeriscaped gardening is encouraged throughout the Valley. Yes, there have been changes. Will they be enough?

Future water use is contingent upon several factors, including demand, technology, and climate change. Projecting future water supply is subject not only to the range of models associated with climate change but also to a complex system of water rights, use, and interests. Some projections of climate change impacts argue that there is sufficient water from the main lake systems for agricultural needs over the next century. But other models point to significant increases in demand: "Climate change, population growth and expansion of the agricultural land base are expected to result in significantly increased water withdrawals from surface and groundwater areas in the Okanagan Basin, especially during summer months."²⁰ In a recent Environment Canada study of climate

²⁰ D. Neilsen, S. Smith, W. Koch, G. Frank, J. Hall, and P. Parchomchuk, *Impact of Climate Change on Crop Water Demand and Crop Suitability in the Okanagan Valley, BC*, Technical Bulletin 01-15, Pacific Agri-Food Research Centre, Summerland, BC, 2001, 7. http://adaptation.nrcan.gc.ca/projdb/pdf/4_e.pdf.

change impacts on Okanagan water supply, a critical model indicates that, “without intervention, regional water demands will not be met in the future. Demand will exceed supply by the 2050’s and as early as the 2020’s in relatively dry years.”²¹

ECOLOGY

Chute Creek is more than a source of water for agricultural and domestic use: it provides aesthetic relief in an arid landscape and shade from the glare of the summer sun. Further, its geological complexity invites a depth of perspective that is often lost in concerns over more imminent change. Like other tributaries of Okanagan Lake, it carves a riparian area through a dry land. Wetlands and valley bottoms are among the region’s most ecologically significant features; they are also the areas at greatest risk. At the millennium, the South Okanagan had lost an estimated 85 percent of wetland and streamside habitats to development.²²

The Okanagan region contains an unusual range of biophysical features, ranging north from the arid southern valley through lowland riparian areas, flanked by the highlands of the Okanagan Plateau. As the *Habitat Atlas for Wildlife at Risk* indicates: “The Okanagan is not only noted for the diversity and uniqueness of its plant and animal species, it is also the region with the most endangered, threatened and rare species in the province.”²³

The South Okanagan, with its arid climate and rugged landscape, is especially vulnerable to human encroachment, whether commercial, residential or agricultural. As the BC Ministry of Environment reported in 2010, the bunchgrass zone ecosystem of the South Okanagan is found in only 1 percent of the province; this region is now “one of the three most endangered ecosystems in our country.”²⁴ Yet expanded residential and agricultural use diminishes habitat available to wildlife:

²¹ Stewart J. Cohen and Tina Neale, eds. *Participatory Integrated Assessment of Water Management and Climate Change in the Okanagan Basin, British Columbia: Final Report* (Vancouver : Environment Canada and University of British Columbia, 2006), 21.

²² British Columbia, *Habitat Atlas for Wildlife at Risk* (Victoria: BC Ministry of Environment, 1998), available at http://www.env.gov.bc.ca/okanagan/esd/atlas/special_area.html (viewed 23 November 2010).

²³ As the *Habitat Atlas* notes, the South Okanagan is home to 30 percent of British Columbia’s Red-listed wildlife species and 46 percent of its Blue-listed species. See British Columbia, *Habitat Atlas*.

²⁴ British Columbia, *Ecosystems Program Plan: Conserving British Columbia Species, Habitats and Ecosystems* (Victoria: BC Ministry of Environment, 2010), 38. <http://www.env.gov.bc.ca/esd/documents/EcosystemsProgramPlan.pdf> (viewed 23 November 2010).

The antelope-brush ecosystem is ... home to 88 species considered at risk ... In the South Okanagan, 60 percent of its historic range has vanished ... Urbanization has been responsible for the loss of about 16 percent of antelope-brush habitat, the other 84 percent to agriculture – vineyards, cultivated fields, orchards and grazed pasture ... [I]f the current rates of loss continue, all antelope-brush will be gone by 2026 outside of protected areas and steep slopes.²⁵

Declines in biodiversity are ubiquitous throughout the planet. Why should we care about this particular loss? After all, human endeavour dominates public discourse. Economic activity, social interaction, and physical support (food, shelter, and clothing) comprise most of what we know and talk about. But our anthropocentrism neglects the ecological foundations of all life, that of humans as well as non-humans. It also reflects our ignorance of the ecosystems in which we live.

The lack of protection for this landscape is particularly noteworthy when we acknowledge its cultural capital. The aesthetic significance of these species is integral to the ways that we experience and think of the Okanagan. As I drive down the road to Penticton, the decline of grassland habitat means that the day is less likely to ripple with the trill of meadowlark. I rarely glimpse Western Kingbirds or Lewis's Woodpeckers these days. Humans are malleable; we don't remember what we've lost. The loss of biodiversity results not only in the loss of home for other life forms; it also results in the diminishment of "home" for us.

FUTURES

Just over a hundred years ago, thousands of years after First Nations settlement, pioneers coursed north through the Okanagan en route to the Cariboo goldfields. On their heels settlers swarmed into the Okanagan Valley, arriving by train and steamship. Paddy Acland, a long-term resident of Summerland, recalls that his father, at the turn of the century, had been

.....all hopped up about a place ... called the Okanagan Valley.
Now it was just as simple as that to him, that ... you bought a 10-acre orchard and you made 1000 pounds a year out of it ...[M]y idea was

²⁵ Larry Pynn, "Vineyards a Threat to Rare Species," *Vancouver Sun*, 20 October 2003, B4.

riding horses and hunting grizzly bear ... becoming as wild as possible ... We hadn't the foggiest notion what we were coming out to.²⁶

We still have only a foggy notion of what we are coming to. But if we fast-forward to generations ahead, based on trends and tensions already visible, we can anticipate problems. Among the issues of future concern are the retention of an agricultural base, rapid gains in human populations, rising costs of housing and social services, increased sprawl and transportation gridlock, cultural homogenization, and continuing declines in biodiversity.

Adaptation is key to sustainability. With the spiralling costs of fossil fuels, for instance, improved public transit is essential. Increased residential density (in non-agricultural areas), in conjunction with a Valley-based public transportation network, could reduce vehicle emissions. A 120-mile "Okanagan Diet" would encourage diversity in agricultural production and markets. In turn, a greater spectrum of employment, especially in cultural, environmental, and high-tech industries, would contribute to a broader economic infrastructure. Additional investments in culture and the arts (such as graphic novels, art exhibits, and film) would enhance regional character and attract tourists. A substantial increase in protected areas throughout the Valley, including a proposed Okanagan-Similkameen National Park, would promote recognition of the unique ecology and character of the region, create opportunities for environmental education and literacy, and maintain habitat for endangered species.

What is missing from this scenario? Do these examples of adaptation effectively challenge the trends of growth, pollution, and environmental degradation? One obvious limitation is that of scale. Different regions of the Okanagan will undoubtedly rely on different strategies for adaptation. As well, our dependence on a larger biophysical and economic system needs to be taken into account. To act locally, we need to think globally. Farmers' markets and "locavore" food consumption provide as yet only seasonal and complementary additions to family diets. As other countries experience political turmoil and resource degradation, we can expect that "surplus populations" will seek asylum in Canada, driving up our numbers. While focusing on the local requirements of this region, we need to remember that Okanagan futures are contingent upon those of others.

²⁶ David Mitchell and Dennis Duffy, "Bright Sunshine and a Brand New Country: Recollections of the Okanagan Valley, 1890-1914," *Sound Heritage* 8, 3 (1979): 1-79.

Will we ultimately be capable of adapting so as to manage development for the common, long-term good? What is the Canadian track record to date? The lack of political will to mitigate climate change, reflected in resistance to global initiatives, is a case in point. As noted above, lower budgets and increased pressures have already eroded the capacity of the Agricultural Land Commission to withstand the increased pressures of development.²⁷ Might “green housing” address our location within (and preservation of) specific natural environments? (For that matter, why not design smaller homes with smaller footprints?) In response to inflation and increased homelessness, are we capable of encouraging greater social equity? How might we shelter others within the context of our own needs?

Our ability to critically anticipate and implement change appears to be constrained by more than imagination. From a critical perspective, sustainability can be seen as a legitimization of market activity. While resources are exploited for profit, the long-term costs of these harvests (e.g., degradation of air and water quality, habitat loss) are externalized. The state’s ability to implement reform or to challenge dominant interests is limited both fiscally and ideologically. Critics of development are then dismissed as messengers of doom and gloom, which only obscures the very real difficulties that lie ahead.

The Okanagan Valley is in transition. However, while the land is geographically fixed, our ideas about, connections to, and visions of this place are dynamic. In little more than a hundred years, we have moved from centuries of First Nations settlement through an agricultural regime of ranches, farms, and orchards and into a “post-subsistence” era glossed by images of wine country and agro-tourism. Our impacts on the natural ecosystems of the Valley are not only a millennial legacy but also our most difficult and essential challenge for the future. How can we preserve the Valley’s biological infrastructure, the plants and animals that traditionally inhabited it? Can we internalize its natural capital in our economic systems so that we have incentives to protect water quality and endangered species? In an era of global consumption and political restraint, how do we preserve this unique environment?

The integrity of ecological systems, agricultural production, and the communities in which we live is fundamental to the sustainability of the Okanagan region. Over the last century, human activity in the Okanagan Valley has been overwhelmingly directed towards the denaturing of place. We inhabit a unique and vulnerable geography.

²⁷ Randy Shore, “Shrinking Budgets Threaten the ALR,” *Vancouver Sun*, 5 September 2010.

The tragedy of the commons “is not that we do not get along with one another, but that we are flourishing like weeds, the ultimate invasive species,” with too little thought for the consequences.²⁸ It’s time to turn that around, to savour, celebrate, and retain the Valley’s natural and social history as the keystone to its authentic character. This is the challenge for a sustainable Okanagan.

²⁸ Melody Hessing, *Up Chute Creek: An Okanagan Idyll* (Kelowna: Okanagan Institute, 2009), 204.