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Wicked

Deborah Curran

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Wicked

If you feel like community sustainability is a moving target, that's because it is.

DEBORAH CURRAN





Justin A. Langlois / brokencitylab.org

CLIMATE CHANGE is a classic “wicked” problem. The sources of the greenhouse gases that cause the problem are ubiquitous, such that no finger can be pointed directly at *the* culprit. Few people agree on how to resolve climate change, and efforts to combat it can cause more problems than they solve. Good examples include the controversies that have arisen over climate-saving solutions such as hydrogen vehicles and corn-based ethanol.

Welcome to the world of wicked problems, a concept discussed recently by John C. Camillus of the University of Pittsburgh in the May 2008 issue of the *Harvard Business Review*. In “Strategy as a Wicked Problem,” Camillus writes: “Wickedness isn’t a degree of difficulty. Wicked issues are different because traditional processes can’t resolve them. ... A wicked problem has innumerable causes, is tough to describe, and doesn’t have a right answer. ... Environmental degradation, terrorism, and poverty – these are classic examples of wicked problems. They’re the opposite of hard but ordinary problems, which people can solve in a finite time period by applying standard techniques. Not only do conventional processes fail to tackle wicked problems, but they may exacerbate situations by generating undesirable consequences.”

This description of wicked problems helps explain why communities have so much difficulty becoming more sustainable. Many “solutions” lead to new problems, bylaw changes can create new complications, and policy updates can result in the need for more policy updates. A classic example involves the “big pipe” solution: replacing aging septic systems in rural towns and villages with municipal sewers that carry waste away to some distant sewage treatment plant. The sewers protect local ground and surface water, but they also open the door to suburban sprawl since the need for individual septic systems no longer limits population levels.

Historically, the laws that govern our communities were primarily designed to address one set of problems or result in a single desired outcome. For instance, municipal zoning emerged from public health and safety concerns that dictated the need to separate incompatible land uses such as a lead smelter and an elementary school.

This notion of separation has resulted in a rigid demarcation between residential, commercial, industrial and other land uses. As Jennifer Lynes and Dan Murray illustrate in their description

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of Bailey's Local Foods, a neighbourhood local-food business (see "Zoned Out" on page 17), zoning can prevent entrepreneurs from setting up home-based businesses that contribute to a community's sustainability by providing access to local goods. In many locales, zoning favours the development of single detached housing divorced from services and transit, and may even push development into environmentally sensitive areas.

Over time, experts have come to recognize that the wicked nature of sustainability demands a more integrated and nuanced approach than is offered by zoning and other bylaws that are often the norm for local governments. What is required instead are carefully crafted, community-specific legal and policy solutions.

The failure of local governments to bring about changes that facilitate sustainability often results from a fear of liability. Many trail or bike path systems, for example, have been stalled

because a landowner or local government is afraid of being sued for public injury. This situation replicates itself with gardening on boulevards or planting fruit trees in schoolyards. It reflects a fundamental aspect of our legal system: property law is about owning something, not sharing it with others in the community.

Another barrier to community sustainability in Canada is the failure of governments to demand it. Most provincial legislation that gives local governments power is permissive – it allows, but does not require them to do things. An exception is Ontario's *Places to Grow Act*, 2005, which specifies a hierarchy of minimum density levels within Southern Ontario. The urban growth boundary model used by Portland, Oregon, and Saanich, BC (also implemented to a certain degree by greenbelts or agricultural reserves associated with Vancouver, Ottawa, Montreal and Toronto), is another way to manage growth. Such tools bring about sustainability since they encourage urban densities that can support local shops and transit, while simultaneously maintaining a working land base for agriculture and other rural industries.

Addressing sustainability as a multifarious, wicked problem isn't easy. It requires an integrated package of solutions, including ecosystem preservation, urban containment, as well as high-density and green development. Moreover, the precise recipe

Ten Traits for Wicked Problems

1. There is no definite formulation of a wicked problem.

The information needed to understand the problem depends upon one's idea for solving it. To describe a wicked problem properly, one has to develop all of the conceivable solutions in advance.

2. Wicked problems have no stopping rules.

When solving a tame problem, the problem-solver knows when the job is done. With wicked problems you never come to a final solution. The problem is continually evolving and mutating.

3. Solutions to wicked problems are not true or false, but better or worse.

The criteria for judging the validity of a "solution" to a wicked problem are strongly stakeholder dependent. Different stakeholders see different "solutions" as better or worse.

4. There is no immediate or ultimate test of a solution to a wicked problem.

Any solution will generate waves of consequences over an extended period of time. Moreover, the next day's consequences of the solution may yield undesirable repercussions which outweigh the intended advantages.

5. Every solution to a wicked problem is a "one-shot operation" because there is no opportunity to learn by trial and error.

Every implemented solution is consequential. It leaves traces that cannot be undone. Every attempt to reverse a decision or correct for the undesired consequences poses yet another set of wicked problems.

6. Wicked problems do not have an exhaustively describable set of potential solutions.

There are no criteria which enable one to prove that all the solutions to a wicked problem have been identified and considered. It may happen that no solution is found.

7. Every wicked problem is essentially unique.

There are no classes of wicked problems in the sense that the principles of solution can be developed to fit all members of that class.

8. Every wicked problem can be considered to be a symptom of another wicked problem.

Many internal aspects of a wicked problem can be considered to be symptoms of other internal aspects of the same problem.

9. The causes of a wicked problem can be explained in numerous ways.

There is no rule to determine the correct explanation for a wicked problem. The choice of explanation determines the nature of the problem's resolution.

10. With wicked problems, the planner has no right to be wrong.

In hard science, the researcher is allowed to make hypotheses that are later refuted. Thus, one is not penalized for making hypotheses that turn out to be wrong. In the world of wicked problems, the aim is not to find the truth, but to improve some characteristic of the world.

Adapted from H Rittel and M. Webber, "Dilemmas in a General Theory of Planning," Policy Sciences, Vol. 4 (1973), pp 155-69; and Wicked Problems: Structuring Social Messes with Morphological Analysis by Tom Ritchey (Swedish Morphological Society, 2005-2008). www.swemorph.com

Communities cannot tackle wicked problems as they would “tame” ones.

must be crafted locally in response to unique ecological, social and economic conditions. The key is integrated planning, so that when solutions create new problems, they can be anticipated and addressed through adaptive management.

Another key for successfully moving toward sustainability is the inclusion of a set of measurable standards in bylaws, as well as in corporate, community and sustainability plans. Effective standards help identify the bylaws and policies that are barriers to sustainability. For example, simple performance-based standards in subdivision bylaws – such as ensuring that there is no net increase in post-development rainwater flow off-site or a requirement for permeable paving – can sustain hydrological function and show the ways in which other bylaw standards inhibit a sustainable approach. As described earlier, policies that specify minimum densities in residential developments are another good example since they help protect the working landscape by containing urban sprawl. Note that these examples are prescriptive rather than permissive, and also performance-based, meaning that communities can figure out how to meet a set standard using local solutions.

Sustainable communities, however, cannot be created by government alone. Their development requires ongoing community involvement. In Whistler, BC, 15 community task forces set annual priority actions that involve all community members: businesses, the municipality, citizens, non-profit organizations and service providers. These task forces influence the monitoring and integration of targets into bylaws and policies. They are ongoing forums in which the community increases its understanding of sustainability, thereby increasing its “sustainability capital.”

A desire to grow its sustainability capital is what caused the City of Dawson Creek, BC, to pledge that it would become carbon neutral by 2012. Mayor Mike Bernier credits this bold step with a 2003 community visioning process that gave him a clear mandate to “start becoming environmentally and socially sustainable.”

To put sustainability law and policy into a comprehensive package that is capable of dealing with the wicked nature of sustainability goals requires the clear-sighted leadership of people such as Hope Burns. The recipient of the Planning Institute of BC’s 2008 Planner of the Year award, Burns is the director of planning for the District of Central Saanich, a small rural municipality north of Victoria. Her report to council, which evaluated a residential development proposal against the priorities outlined in Saanich’s community plan, convinced council to turn down the application even though it involved many sustainable features: permeable paving, storm-water infiltration, clustering of buildings, a trail, green roofs and green building certification. Nonetheless, it was an urban development plan that was inappropriate for a rural area, a reality that underlines the pass/fail nature of some land-use

decisions. Regardless of how green it is, a residential building in the middle of a potato field fails the test.

As outlined by Camillus, wicked problems are never “solved.” Communities cannot tackle wicked problems as they would “tame” ones. They cannot understand the problem, gather and synthesize information, develop a solution, and then achieve sustainability. Instead, they have to learn to move forward despite not fully understanding the problem, nor having established a definitive solution. Responses are adapted over time.

The good news is that much of what makes a community sustainable is possible from a legal perspective. The legislation needed to enable local governments to make sustainable choices is already in place. As community and government leaders come to recognize the wickedness of sustainability, they will understand that they can’t blame bylaws for failed efforts to achieve sustainability. They will also learn that adjusting laws is only one of many tools they have to employ in their efforts to create more sustainable communities. 🐣

Deborah Curran, a land-use lawyer, is a program director/senior instructor with the University of Victoria’s Environmental Law Centre and Faculty of Law.

In BC, a conservation-based approach to development is captured in the **Green Bylaws Toolkit**. It presents an ecosystem-based perspective on relevant local government planning, and dedicates some 130 pages to sample bylaw wording www.greenbylaws.ca.

For more on wicked problems, check out Camillus’ paper, “Strategy as a Wicked Problem,” through the online table of contents for this issue at www.alternativesjournal.ca.



They Mean It When They Say It

THEY say it like this: “Broken City Lab is an interdisciplinary creative research group based in Windsor, Ontario that tactically disrupts and engages the city, its communities, and its infrastructures to reimagine the potential for action in a collapsing post-industrial city.” The “We’re In This Together” message is the first of a series of interventionist performances for *Cross-Border Communication*. The project takes communication between Windsor and Detroit out of the economic arena. With a modest budget (that could still use your help if you are so inclined), Broken City Lab research director Justin Langlois is gearing up for 45-minute-long projections of inspiring messages. Changing weekly, they will appear on the CIBC building in Windsor since it is easily visible for Detroit residents. Check out how this one-year-old group of artists and researchers combines art and words to say what it really means by visiting brokencitylab.org.