Community: Defining the Concept and its Implications

NWMO SR-2006-02 June 2006

Brenda L. Murphy
Wilfrid Laurier University

Richard G. Kuhn
University of Guelph

nwmo
NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

Nuclear Waste Management Organization
22 St. Clair Avenue East, 6th Floor
Toronto, Ontario
M4T 2S3
Canada

Tel: 416-934-9814
Web: www.nwmo.ca

Nuclear Waste Management Organization

The Nuclear Waste Management Organization (NWMO) was established in 2002 by Ontario Power Generation Inc., Hydro- Québec and New Brunswick Power Corporation in accordance with the *Nuclear Fuel Waste Act* (*NFWA*) to assume responsibility for the long-term management of Canada's used nuclear fuel.

NWMO's first mandate was to study options for the long-term management of used nuclear fuel. On June 14, 2007, the Government of Canada selected the NWMO's recommendation for Adaptive Phased Management (APM). The NWMO now has the mandate to implement the Government's decision.

Technically, Adaptive Phased Management (APM) has as its end-point the isolation and containment of used nuclear fuel in a deep repository constructed in a suitable rock formation. Collaboration, continuous learning and adaptability will underpin our implementation of the plan which will unfold over many decades, subject to extensive oversight and regulatory approvals.

NWMO Social Research

The objective of the social research program is to assist the NWMO, and interested citizens and organizations, in exploring and understanding the social issues and concerns associated with the implementation of Adaptive Phased Management. The program is also intended to support the adoption of appropriate processes and techniques to engage potentially affected citizens in decision-making.

The social research program is intended to be a support to NWMO's ongoing dialogue and collaboration activities, including work to engage potentially affected citizens in near term visioning of the implementation process going forward, long term visioning and the development of decision-making processes to be used into the future The program includes work to learn from the experience of others through examination of case studies and conversation with those involved in similar processes both in Canada and abroad. NWMO's social research is expected to engage a wide variety of specialists and explore a variety of perspectives on key issues of concern. The nature and conduct of this work is expected to change over time, as best practices evolve and as interested citizens and organizations identify the issues of most interest and concern throughout the implementation of Adaptive Phased Management.

Community:
Defining the Concept and its Implications

Brenda L. Murphy, PhD* and Richard G. Kuhn, PhD**

*Wilfrid Laurier University
bmurphy@wlu.ca

**University of Guelph
rkuhn@uoguelph.ca

TABLE OF CONTENTS

1.0 Introduction

As the Nuclear Fuel Waste Management Organisation (NWMO) submits its final report to the federal government and then, potentially, moves towards the implementation of a preferred option, the concept of community will play an increasingly important role in the management of Canada's nuclear fuel waste (NFW). Due to the extremely long time lines involved with the management of NFW, the NWMO must also put mechanisms in place to consider the views of yet unborn citizens and their communities. These current and future communities, representing a plethora of perspectives, must be identified, assessed and engaged in consultation according to the NWMO's stated objectives such as fairness and community well-being and in line with their underlying management orientations, such as sustainable development. In their third discussion document, *Choosing a Way Forward*, the NWMO (2005, 213) states that their post-study community engagement strategy will be structured to achieve three objectives:

- To continue the exchange of information and enhancement of knowledge between communities of interest and the NWMO
- To collaboratively build and implement processes that provide opportunities for various interests to participate in the decisions that affect them; and
- To confirm the alignment of our implementation with the needs and concerns of Canadians.

Given this context, the purpose of the report is to delineate the concept of 'community', with particular attention focused on the Canadian landscape. Historical context is provided through reference to the Seaborn Panel (1998) review of the deep geologic concept. The report begins by summarising the relevant academic literature and develops a working definition of the concept of community. The goal in this section is to establish a set of insights that will underpin the remainder of the discussion. This is followed by a review of key dimensions of the environmental justice literature as well as the literature on public engagement, community assessment and siting. The report also describes some of the key communities that will have an interest in the management of Canada's NFW. The report is interlaced with an on-going discussion of the scalar and temporal dimensions of community and examples of 'best practices'.

2.0 What is 'Community'?

Within society, the meaning of the term 'community' can be nebulous; among other things it is imbued with both spatial and aspatial characteristics. From a spatial perspective, community is often associated with a delineated geographic area such as a neighbourhood or town. Aspatially, the term tends to imply a sense of belonging, stability and group identity. According to the Merriam-Webster Online dictionary, a community is a 'unified body of individuals' with common interests, or within a common location or with a common history.[1] Beyond government and capitalist market sectors, communities are also considered part of society's 'third sector' – civil society. As such, communities are often portrayed as apolitical, private and localized (Swift 1999). These various notions of 'community' are problematic for several reasons, particularly because they undermine the ability to understand how issues of fairness and justice impinge upon communities and because these ideas are at odds with the empirical data about real world

[1] (http://www.m-w.com/).

communities. Thus, unchallenged, these notions of 'community' do not provide a realistic basis upon which to understand and evaluate the nature, needs and concerns of communities. Further, when incorporated into environmental management strategies, these taken-for-granted notions increase uncertainty since there is doubt regarding the accuracy of the information about communities upon which to base decisions. This could lead to problems during the implementaiton of preferred management strategies. The following sections offer a comprehensive definition of community and outlines five caveats that must be kept in mind when utilising the 'community' concept.

2.1 Definition of Community

This section develops a more robust definition of community through a review of several definitions advanced in the academic literature. Although the definition of community is a complex task this is a notion, both within academe and in everyday life, that persists, it is an idea that "just will not lie down" (Day and Murdoch, 1993, 85). Two key reasons for this are, first, the community concept contains references to "both the importance of place, and the wholeness of social life"; this refers to the idea that people's location within particular places is an important aspect of their lived experiences (Day and Murdoch, 1993, 84). Second, the notions of community affect how people think about themselves and are implicated in the production of their personal identities (Revill, 1993).

According to Miller (1992, 31) community should be understood as a 'morally valued way of life' rooted in 'mutual understanding'. Communities, from this perspective are socially constructed and based on social relationships; there is no necessary correspondence to particular places. Communities may be place-specific - 'in the sense of being constituted in a discrete geographical setting' (Miller 1992, 31). This more traditional perspective views communities as predicated on face-to-face interactions in particular localities (Paez Victor 1993). But it is becoming increasingly evident that communities may also be extensive - that is 'shared by dispersed populations' (Miller 1992, 31). Similarly, Silk (1999, 9) states that communities may not have a territorial basis, and are increasingly 'stretched-out' over space. Increasingly, with modern telecommunications, it is also possible for these communities to exist only in the virtual world. Some authors use the term 'communities of interest' to differentiate these stretched out communities from those based on place (Liepens 2000, Newman 1980). Communities of interest could be based on a wide variety of characteristics ranging from kinship, worldview, identity, religion, hobbies, employment, etc. Thus, while communities may be co-terminus with neighbourhoods or other geographic places, they may also involve social relations that are stretched out over space. In a similar manner, these social relations can also be stretched out over time, thus incorporating the idea of future generations.

Hence, both communities and their membership must be conceived to exist simultaneously in multiple times, spaces and places (Liepens 2000). Young (1990) further reminds us that while a particular community may partly constitute a person's identity, an individual's affinity with a group does not exhaust the full extent of that identity. Or put another way, the characteristics of any one group only partly constitute an individual's identity. For instance, a person may be part of a local neighbourhood, but also have membership in an extended family group and affiliation with a religious sect, professional organisation and special interest group. The overlap and

interaction among various communities and the boundaries of such communities will always be socially derived and complex; empirical elucidation will be necessary to understand who identifies with various communities, at what specific points in time and under what circumstances as well as who defines communities and for what purpose (Miller 1992). This implies that identities and conceptions of community will also be subject to contestation and change.

Miller's definition of community also points to another key characteristic of communities; communities establish a set of moral norms and mores – guidelines regarding how to look at and be in the world. This is a point stressed by communitarians[2]. They maintain that people's moral perspectives are always reflective of culture and communities; persons are always situated, embedded and encumbered by the social context (Etzioni and Lawrence 1991). Mary Douglas (1991, 180) elucidates what this means for understanding risk and its acceptability:

> …as soon as there is a community, the norms of acceptability are debated and socially established. This activity constitutes the definitional basis of community…A community uses its shared, accumulated experience to determine which foreseeable losses are most probable, which probable losses will be most harmful, and which harms may be preventable. A community also sets up the actor's model of the world and its scale of values by which different consequences are reckoned grave or trivial…

The Seaborn Panel report (1998) was quite clear on this connection to morality when it pointed out that differing sets of community value systems, or world views tended to result in different ideas regarding the safety and acceptability of the deep geologic concept. It is through community that risks are recognized, addressed and evaluated for acceptability. When conceptualised in this way, it becomes clear that communities cannot be conceived as apolitical; decisions about risk or other issues involve choices, influence and debate. As Staeheli (2003, 819) asserts, "…community provides a political space that is in flux in which competing political ideas – such as those swirling around debates over social rights – are negotiated". In other words, community-level activity is far from the conjectured apolitical space often associated with civil society; the community scale is imbued with power relationships and, consequently, the potential for (in)justice towards marginalised members and groups.

It should also be clear from the above discussion that communities do not operate completely independently from each other or from broader societal forces. For instance, a community of interest, such as a local protest group, may gain support from a higher level environmental non-government organisation, but feel constrained by the rules associated with government mandated public consultation mechanisms. Crawford (1996) maintains that communities are only semi-autonomous. On the one hand they can make rules and enforce compliance around some issues. On the other, communities are embedded within a 'larger social matrix' that invades communities. This matrix sometimes imposes itself on communities and groups while at other times it is welcomed.

[2] Communitarianism is a political theory that focuses on the local context, revival of a sense of community, direct participation, personal responsibility and face-to-face interaction as the mechanisms most likely to contribute to the improvement of democracy and the active involvement of the citizenry. It is essentially a 'frontal challenge' to individualistic/rights based approaches central to liberal doctrines (Jones 1997).

Given the socially constructed nature of communities, their fluid boundaries, power relations and embeddedness within the broader social matrix, it can, be suggested that the conceptualisation of either place-based or interest-based communities as discrete entities with firm boundaries is both deceiving and inaccurate. Instead, as Day (1998) suggests, we should conceptualise communities as networks of relationships to which people have multiple affinities and connections. Davies (2002), in aligning the concept of community with sustainable development, defines networks as the inter-relationships among individuals, organisations and *the non-human world* through which flow 'resources, arguments and knowledge'. Understanding these networks and the flows that occur allows for the evaluation of the power dynamics within the particular process or project under consideration. She concludes that initial conditions wherein power imbalances exist among various communities often means that elite actors tend to control the undertaking. Further asserted is that top-down attempts "to generate bottom-up actions for sustainable communities" are seriously flawed, partly because localities are usually not considered within the context of wider relationships at different scales. Conceptualising communities as networks means that the form, boundary, power relationships, and so on of the community are fluid and dynamic and only exist as far as the people involved recognize and maintain the network identity and connections. This conceptualisation also suggests that if communities are not concrete and static, there is potential for their meanings and relationships to be renegotiated; potentially this leaves space to include excluded 'others' and to redefine moral values and perspectives.

Given the above discussion of the academic literature, the following definition of communities is advanced.

Communities are networks of relationships with fluid boundaries, to which people have multiple place-based and interest-based affinities as well as connections to both the human and non-human world.

Community relationships are socially constructed (e.g. embedded in history and culture), political, dynamic and involve flows of social power, as well as the distribution of resources both within and between communities. Community affinity is always implicated in identity, but never completely identifies individuals. Communities are only semi-autonomous and are embedded within broader societal structures.

2.2 Critical Assessment of 'Community'

Flowing from this definition, five key issues with conceptualisations of 'community' often arise when utilised during environmental management policy development, decision-making and project development. This section offers ideas regarding how these issues could be addressed.

i) The conflation of particular places with people's cultural or socio-economic affiliations
One of the main issues associated with the use of the term 'community' is the direct association often made between geographic places and communities and the failure to recognize the ways in which communities may also be defined by interest rather than place. In some instances this may disenfranchise communities that do not have a direct connection to the place-based community most directly affected by a project. More broadly, this focus on geographic

communities reflects a tendency in many environmental management processes to localise the scope of the project, and avoid conceptualising how the local scale is embedded in broader level societal structures and power dynamics. This issue can be avoided by carefully assessing the community involved in particular processes, providing mechanisms that target the involvement of marginalised communities and frame the management problem in a way that recognises broader scales and societal contexts.

ii) Failure to acknowledge multiple affiliations and community memberships
Within modern society, people's identity often involves affiliations to several communities, some of which might even involve conflicting ideas and values. For instance, people may simultaneously hold membership in Greenpeace while supporting new road development in their neighbourhood or working for a polluting industry. These overlapping and conflicting roles are often not acknowledged in environmental management processes. Close and intimate knowledge of the communities involved will be required to identify these networks of affiliations. Solutions should be sought that avoid win-lose dichotomies; it is often possible to find compromises in which multiple communities feel they benefit from the resource management initiative.

iii) The association of community with immutability, stasis and conservatism
When community is associated with tradition and timelessness, this stability often implies stasis and adherence to the status quo. This may mean that romantic, nostalgic notions of community will re-enforce social hierarchies and impose limits delineated by tradition (Revill, 1993). In this way the idea of community, while often associated with social wholeness, harmony between persons and participatory democracy (Young, 1990) may also have the tendency to reproduce repressive class or gender roles within society (Revill, 1993) or unsustainable development practices (Harvey, 1993). This is an important caveat for environmental management policies that sometimes assume small, rural or northern communities will automatically adopt an ecologically friendly perspective to protect their natural environment (Brosius *et al.*, 1998). The implication is that static understandings of community do not reflect the malleable, contingent, evolving reality of many community perspectives and cannot incorporate ideas about change associated with such concepts as sustainable development. This is of particular importance for policy planning when continuing, long-term problems such as nuclear fuel waste or climate change are involved. Again, specific knowledge of the communities involved will reveal the extent to which the communities may or may not support various environmental management initiatives. Continuous (re)assessment of these communities over time will allow management organisations to adjust their approaches to changing circumstances and contexts.

iv) The dynamics of inter-community relations
Young (1990) cautions that the ideal of community tends to be committed to 'within group mutual identification' and, therefore, it often suppresses individual difference and promotes homogeneity. In failing to recognise difference *within* communities, attention to the power relations, unequal distribution of resources and hierarchical nature of some communities is suppressed. Within environmental management this may mean that community engagement processes do not address or evaluate the extent to which various community leaders represent the views of their constituencies. In the case of Canada's Aboriginal community, for example, the Seaborn Panel (1998, 20) clearly identified that "Aboriginal people are not a homogeneous segment of the Canadian population. With 580 Indian bands…numerous Inuit and Metis

communities and 53 Aboriginal languages spoken in Canada, there is extreme cultural diversity among Aboriginal people." For management organisations, this means that 1) within-group community hierarchy and power dynamics must be incorporated into management strategies, 2) consultation must move beyond meetings with community leadership and 3) the way in which membership perspectives will influence the process must be clearly articulated (e.g. through a referendum).

v) The dynamics of intra-community relations

Intra-community relations, the interaction between groups, is also of central concern, particularly with respect to the role of social power relations. As Young (1990) asserts, within society less powerful group perspectives tend to experience cultural imperialism, while the dominant group perspective is universalised. By this she means that society's dominant culture and experiences become the norm, the accepted way of seeing, acting and organising the world we live in. In contrast, subordinate group perspectives tend to be rendered either invisible, deviant or both; these inferior identities are marked as 'Other'. She states that the ideal of community "leaves completely unaddressed the question of how such small communities relate to one another" (Young, 1990, 234). At a superficial level, the power inherent in these dominant/subordinate relationships involves the unequal distribution of resources, such as money or education. However, at a deeper level, power also involves the structural and systemic social relations that may lead to the inability of some groups to either express their opinion or to act in their own interest. Within environmental policy making, this distinction gets to the core difference between such things as accepting the current way an environmental assessment is scoped and completed and questioning whose voice tends to be valorized in that evaluation and determining whether the process is reflective of dominant approaches to decision-making. It is suggested that management organisations can deal with this issue by providing assistance to marginalised communities to better articulate and participate in decision-making processes. More importantly, however, management organisations must question the status quo rules, regulations and definitions that circumscribe their relationships with various communities and, to the extent possible, should strive to correct power imbalances and instances of systemic inequity.

3.0 Communities and Environmental Justice

The NWMO (2005, 71) has indicated that one of their objectives is "to ensure fairness (in substance and process) in the distribution of costs, benefits, risks and responsibilities, within this generation and across generations". This follows closely the Seaborn Panel (1998, 34) approach where it is suggested that ethical and social values must be made explicit, otherwise, …"there is a greater risk of developing policies that will perpetuate inequitable relationships between present and future generations, or that may damage the relationships between human beings and the ecosystem". These ideas dovetail closely with the concept of environmental justice. This section provides some background about environmental justice and explores how this concept overlaps with that of community.

Within environmental management, arguably one of the approaches that draws focused attention to the fairness and equity of intra-community networks (across time and space) as well as the relationship between communities and the bio-physical world, is the concept of environmental justice. Environmental justice can be defined as

…the fair treatment and meaningful involvement of all people regardless of race, colour, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies (Bullard 1999, 7).

The environmental justice movement maintains that environmental concerns cannot be separated from other social issues. In this approach the notion of environment becomes redefined beyond the bounds of the physical world; it also involves all of those spaces and places in which people live, work and play (Field 1998). In this way the concept overlaps with ideas associated with sustainable development where the interconnectivity among the social, environmental and economic worlds is recognized. Thus, paying attention to issues of environmental justice may result not only in equity and fairness across communities, it may also protect the environment and incorporate consideration of future generations.

Bullard (1999, 12) further states that environmental justice recognizes that "all communities are not treated the same." Disadvantaged communities (particularly Black and Aboriginal groups) are more likely to be exposed to pesticides, lead, air and water pollution, toxic releases and so on. Beyond this distribution of risks among communities, several theorists insist that justice must also acknowledge the underlying processes and social relations that lead to those distributional patterns (Young 1990, Schlosberg 2004, Field 1998, Hunold and Young 1998). Attention to this second aspect of justice requires recognition to differences among groups or communities – it queries the reasons behind inequities. Among those reasons, Field (1998, 86) points out, one of the most important is related to the 'logic of production'. For instance, when siting concentrates on site-specific risks or fairness, 'the existence of pollution as a natural part of industrial production' is already assumed. In this way environmental justice, like the community literature not only critiques the distribution of risks, it also questions social structures and dominant approaches to development and growth. As Douglas (1991, 172) states:

> Since the present distribution of risks reflects only the present distribution of power and status, fundamental political questions are raised by the justice issue…When a greater damage to a large population can be avoided by relocating a dangerous industry to a sparsely settled areas, fundamental ethical issues are raised….why ever should the Indians of the American Southwest for instance, already burdened by economic and health disadvantages agree to be sacrificed to the greatest happiness principle?

In turn, Schlosberg (2004, 519) insists that lack of recognition of difference often works in tandem with the inability to participate in political and social processes. "If you are not recognised, you do not participate". Thus, in addition to distribution and recognition, justice must also incorporate participation. Similar to the ideas expressed by community theorists, justice requires democratic and participative political and decision-making processes that can address inequitable distribution or risks and benefits as well as the conditions undermining recognition of communities. Hunold and Young (1998, 85) in their discussion of siting agree when they insist that focusing on distribution avoids questions such as 1) "Who ought to have the right to make decisions and to participate in the debate?" and 2) What definitions, procedures, and institutional structures ought to guide the decision-making process?

In terms of ideas associated with the concept of community, the environmental justice approach tends to be more focused on place-based communities and their attendant problems. There is

often less emphasis on how communities of interest, not based in particular geographic places, might engage with environmental justice issues. However, this limitation only continues to be a quandary when environmental issues are scoped as local problems and connections to broader scale contexts are ignored. Thus, environmental management problems, such as nuclear fuel waste, that have broader scale implications, should be defined in a way that allows the participation of both place-based and interest-based communities.

3.1 Environmental Justice Principles and Aboriginal Peoples

In the case of Canada's Aboriginal peoples, justice requires more than the usual measure of recognition and participation since their rights are enshrined in constitutional law that have been further elaborated by several recent court decisions (Lucas 2002). In this way, Aboriginal groups represent a very special case of community in Canada (as outlined above, this does not mean that they are a homogeneous group). At the broadest level, Aboriginal peoples include First Nations, Metis and Inuit groups. "Aboriginal peoples are certainly not just another stakeholder when their rights and their rights alone, enjoy constitutional protection" (Smith 1995, 2). Thus, in multi-stakeholder processes Aboriginal peoples demand to be treated as a level of government, not just as interested parties. This importance of community is also recognised in the Nuclear Fuel Waste Act (2002)[3]. It is beyond the scope of this paper to elaborate the details, except to reiterate that it is the federal government's fiduciary duty to consult with Canada's Aboriginal peoples and that the consultation must occur on a 'nation to nation' basis.[4]

In light of the outlined Aboriginal consultation and environmental justice issues, the principles adopted at the First National People of Color Environmental Justice Leadership Summit are outlined as a guideline for achieving justice for Canada's First Peoples. In October 1991, the delegates at the Summit adopted 17 environmental justice principles (See Appendix B)[5]. These included: environmental justice affirms the sacredness of Mother Earth, public policy formation should be based on respect and trust, the production of all toxins, hazardous wastes, etc. should be banned, environmental justice should protect the rights of those affected by a facility and it recognizes the legal relationship between native peoples and governments. These principles are particularly structured to allow for the accommodation of the various needs and concerns of specific groups within the broader Aboriginal community. For instance, the principles could be adopted by a national organisation such as the Assembly of First Nations, by a provincial group such as the Metis Nation of Ontario, or by a local band council.

[3] http://www.parl.gc.ca/37/1/parlbus/chambus/house/bills/government/C-27/C-27_4/90140bE.html#2

[4] As a cautionary note, Hoffman (2001, 469), in his review of the attempted siting of a monitored retrievable storage (MRS) nuclear waste facility on Skull Valley territory in the United States maintains that achieving 'representative procedures for meaningful participation in decision-making' is exceedingly difficult. He states that in attempting to site an MRS, the proponent's sudden concern for Aboriginal sovereignty was used to counteract the state of Utah's opposition to the facility; it had little to do with respecting the needs, concerns and rights of the community. Thus, "rather than providing a means for the community to meaningfully participate in those processes that will determine the context of their lives, sovereignty is being turned on its head and is serving as an instrument for oppression" (Hoffman 2001, 470).

[5] http://www.ejrc.cau.edu/princej.html

As a template to structure discussion, consultation, decision-making and implementation about the ethical dimensions of community and the environment, these principles are particularly appealing since they have been articulated by members of marginalised communities. Further, this set of principles is often referred to in the environmental justice literature as the standard against which to judge justice issues. More generally it is also suggested that environmental justice perspectives can provide guidance regarding issues of long-term sustainability and inter-generational fairness. It is important to note that it may not be possible for environmental management organisations to completely adopt these principles and that organisations may or may not choose to abide by such principles. Nevertheless, it seems clear that Aboriginal communities will make these types of claims and that environmental management organisations should be aware of such claims and be prepared to defend and justify the environmental justice position they adopt.

In a Canadian context, since many of the potential locations for NFW management facilities may impinge on First Nations communities and territories, as well as affecting other peripheral areas, these 17 principles could serve as a guide to augment the understanding of fairness and equity among communities. Members of Serpent River First Nations, for instance, complained that the consultation undertaken by Atomic Energy Canada Limited and the Seaborn Panel was inappropriate and did not meet the needs of their communities. They also argued that the Elliot Lake uranium mining operation was imposed on them without consultation and that the facility has negatively affected their culture and traditional economy (Rekmans et al. 1999).

4.0 Communities, Stakeholders and Public Participation

Neither the community nor the environmental justice literature provide significant guidance regarding the identification, assessment or engagement of communities; work in this area has been undertaken through the concepts of stakeholding and public participation. It seems clear that there is a great deal of overlap between the concepts of community and stakeholding. Indeed, some authors point to the way in which some stakeholding perspectives have communitarian overtones (Sunley 1999). Thus, whilst the stakeholder concept has been criticised because it does not question status quo power relationships and resource distribution (Sunley 1999, Imrie and Wilks-Heeg 1996), the concept does offer some important insights for understanding the ways in which communities interact around important policy questions. Further, the associated literature offers some important approaches for incorporating stakeholders into public participation processes.

As the NWMO (2005) clearly outlines in *Choosing the Way Forward*, the organisation has been extensively involved in attempting to hear the voices of a wide variety of Canadians regarding the issue of NFW management. This has involved a range of mechanisms including public attitude research, roundtables, citizen submissions, nuclear community/regional and national dialogues, e-dialogues and submissions, expert panels, and many others. This section outlines mechanisms to identify stakeholders, the reasons to undertake multi-stakeholder (community) processes, the main tenets of a socially and environmentally just approach to public engagement and the challenges associated with such activities.

4.1 Identification of Stakeholding Communities

A stakeholder is defined as "any identifiable group or individual who can affect the achievement of an organization's objectives or who is affected by the achievement of an organization's objectives" (Freeman and Reed 1983, 91). Although the term originated with settlers 'staking their claim', the concept is now used in several ways, one of which is to question the extent to which stockholders are the only ones who have a 'stake' in the corporation's undertaking (Sunley 1999). The argument goes that company decision-making affects a wide range of stakeholders from employees to suppliers to communities and that corporate social responsibility requires attention to these various interests. For instance, the idea of 'green-stakeholders' has been advanced to "refer to those groups affected by environmental externalities" (Sunley 1999, 2192).

In the terminology of this paper – the idea of stakeholding recognizes that both place-based and interest-based communities may have the potential to affect an organisation's attainment of their goals. In reference to decisions about risk, Petts (2004) suggests that stakeholders are defined, organized parties with an interest in that decision. The stakeholder concept has gained salience as market decisions have become more politicized and various groups and communities, particularly those involved with environmental and social justice have gained political prominence (Freeman and Reed 1983, Madsen and Ulhoi 2002).

We would caution that the terms 'community' and stakeholder' are not completely analogous. They are however, interrelated in at least the following five ways. First, communities can become stakeholders when they feel the need to intervene on behalf of something they value that is being affected by an outside, extrinsic force. Hence, an Aboriginal band may identify themselves as stakeholders, or feel compelled to identify themselves in this way, if they feel a decision may affect their traditional territory. Second, from the pool of potential communities in society, the proponent might identify potential stakeholders who are affected by their policies and processes. In an environmental assessment process, for instance, the proponent is often asked to identify the various communities that will be affected by the project. Third, as a *result* of a new initiative, new communities become established, amalgamating individuals who feel they have a similar 'stake' in the proposed undertaking. Fourth, communities could be potential stakeholders (e.g. they are in some way affected by the undertaking) even if they are not recognised by the proponent or do not themselves recognise that their interests might be affected. Fifth, stakeholders may also consist of formal organisations that would not necessarily be considered communities (e.g. regulators, commercial/industrial firms).

In terms of the identification of potential stakeholders from the pool of communities, Jackson (2001) cautions that stakeholders initially left out or not identified, particularly members of the so called 'latent public', could potentially subvert and derail the process as it unfolds. Clearly then, it is important to identify all potentially affected geographic and interest-based communities.

Stakeholder identification can be accomplished through an iterative process where an initially visible and interested, self and proponent identified group of stakeholders is asked whom they consider to be the other key players (Jackson 2001). The list of stakeholders is then expanded to

include any newly identified group. We would argue that this process could then be repeated to capture yet more potential stakeholders and as a method for periodic reassessment of stakeholder interests. Jackson (2001) cautions that stakeholders must include all those who consider themselves to have a stake or interest; not just those whom the responsible agency identify or choose to involve. However, it may also be the case that some marginalised interests will not be identified through the above approach. Thus, further measures to ensure stakeholder identification could include initial open houses and information sessions to raise awareness of the project and broad surveys to assess public opinion. Additionally, presence in the locally affected area will also increase proponent awareness of potentially interested communities as well as their perspectives, relative power position and the communities' requirements to express their needs and participate effectively. Also useful would be a broader contextual assessment of the various perspectives and groups within society and the evaluation of the extent to which these views are represented by the stakeholders already identified.

Once there is reasonable certainty that stakeholders have been identified, it is then necessary to assess the level of heterogeneity or homogeneity within each group, the network relationships within and between groups and the stability, fluidity and points of overlap of the various community boundaries. For example, within geographically bound communities, wealth, gender and other divisions should be identified (Grimble et al 1993), as well as the overlap with interest-based communities (e.g. environmental NGOs, business groups, etc.)

These processes, however, only indirectly incorporate the concerns of future generations, their communities and interests. Shrader-Frechette (1991) asserts that the legacy problem – the exportation of waste to future generations – is one of the key equity problems facing nuclear waste management. One key ethical dimension of this problem is related to continued storage, since this would burden future generations with enormous financial costs. A second dimension revolves around the question of irreversibility of geologic disposal options since this truncates the range of choices open to future generations (both to manage the waste and utilise its resources). Yet a third quandary hinges on the relationship among nuclear power and waste, the 'plutonium economy' and the development of nuclear weapons (Shrader-Frechette 1991).

Given these dimensions of the legacy problem, how then might it be possible to consider the perspectives of future generations? A detailed assessment of this issue is beyond the scope of this paper; here we offer three suggestions. Grimble et al. (1993) argue that some groups may be able to consider some aspects of the temporal dimension of stakeholder involvement by considering the potential interests of their unborn children. However, it is unclear to what extent present day communities will be able to balance their current needs against that of future generations. Another way to incorporate future generations is to project forward the presumed costs (both financial and social) and possible management scenarios at least some distance into the future. Of course, the inherent uncertainty embedded in such exercises means that these visioning exercises cannot be construed as what will actually occur, but only as alternative possible futures. Another opportunity for getting some sense of future perspectives, albeit in the near term, is to include young people in the consultation exercises. This, however, only projects forward one generation, and it is safe to presume that the views of this younger generation will evolve over time.

4.2 Potential Stakeholding Communities

Fineman and Clarke (1996, 716) state that the concept of stakeholding "envisages an organisation of fluid boundaries, nested in constituencies of 'interests', some overlapping, some reciprocal". In terms of environmental protection, they maintain that there are four 'interest-sets' that can influence an organisation's response. These are environmental protest and campaign groups; regulators; those who have an indirect interest in the organisation's environmental performance (e.g. customers who buy 'green' products, shareholders); and internal stakeholders (e.g. members of the organisation whose role involves environmental work).

In a slightly different interpretation, Yosie and Herbst (1998) maintain that stakeholders may be 1) those directly affected by the decision or project, 2) those interested in the project who choose to get involved, 3) those interested who seek out information, and 4) those affected by the project but are unaware of the public process or choose not to participate. More specifically, based on Agenda 21 (of the Rio Declaration), the following stakeholders may be involved in decisions concerning sustainable development: international agencies such as the United Nations, governments (national to local), intergovernmental bodies, NGOs of various types, scientists, technical and ethic experts as well as academics, Aboriginal peoples, women's groups, farmers, industry and business, professional associations, media, regional authorities that represent forest or water interests (e.g. conservation authorities) and affected people (Hemmati 2002). In the case of nuclear fuel waste management we would note that international agencies would include the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA) and that the definition of 'affected people' could be expanded to include host, transportation, adjacent and other placed-based communities affected by any siting or decision-making processes.

The stakeholding literature suggests that the capacity to affect decision-making is far from even across stakeholders. Fineman and Clarke's (1996) analysis of four industries suggests that, of the external stakeholders only environmental campaigners and regulators had any real influence and that those stakeholders perceived by the organisation as being most legitimate and the least threat had the most access to the organisation. Their analysis also found that 'green' or ethical stakeholders tend only to be acknowledged when they are able to form 'irresistible alliances' – for instance, between campaigners and the media. Similarly, Berry (2003) argues that to be considered important by decision makers, stakeholders must have some degree of legitimacy, power and resources. Activist communities, those with the ability to influence decision-makers are, therefore, those that can self-generate social and political ideas and can absorb and utilise needed resources.

Petts (2004) makes a similar distinction when she differentiates between stakeholders and the 'public'; the latter described as those who have a stake in an issue, but who are less well organized, defined and identified. Short and Rosa (2004) and the policy community literature (see for instance Marsh 1998, Coleman and Skogstad 1990, Cloke et al. 2000, Rhodes 1990) further caution that the term stakeholder is far from an unambiguous and neutral term in that it often focuses on those interests that are organized and active, rather than those who may have an interest, but are mere spectators in the participation and decision making process. This reduced status is often related to the lack of resources and distrust of the political system. We would also

suggest that less well organised members of the public do not constitute a homogeneous community. Instead, the 'public' must also be acknowledged as internally heterogeneous, representing many different types of communities. This distinction between active and passive actors has been an ongoing problem for stakeholder involvement in NFW management. The Seaborn Panel (1998), for instance, was well aware of the shortcomings of their public consultation processes and undertook various initiatives to increase the participation from the general public.

4.3 Stakeholders – Canadian Nuclear Fuel Waste Management

Based on this review of the community and stakeholder literature and knowledge of the Canadian context, the community stakeholders involved with NFW management are outlined below. The stakeholders are divided into the three spheres – government, market and civil society. Since this paper is focused on ideas associated with community, fine-grained divisions are provided for the civil society sphere.

Responsible Authorities, Government Organisations and Decision-makers

1. Nuclear Waste Management Organisation
2. Natural Resources Canada, other federal agencies and the federal Cabinet
3. Regulators and others who provide oversight including the Canadian Nuclear Safety Commission, Transport Canada, Environment Canada
4. First Nations governments and their representatives including the Assembly of First Nations, etc.
5. Provincial governments and their agencies
6. Regional and local government authorities and agencies
7. International organisations such as the IAEA and NEA

Market-based Stakeholders

1. Atomic Energy Canada Limited
2. Nuclear power generators (Ontario Power Generation, Bruce Power, New Brunswick Power and Quebec Power)
3. Firms that provide goods and services to the nuclear industry or in some other way have an interest in the issue
4. Unions representing industry workers

Civil Society

Activist Communities:

Directly Affected Communities

1. Geographic communities (e.g. communities with existing nuclear facilities, host, adjacent, transportation, downwind/downstream, Aboriginal and any others that come forward)
2. Communities of interest located within the affected region (e.g. Aboriginal, business communities, local chapters/organisations oriented towards service, environmental, women, religious or justice activities, etc.)

Communities with Active Interest and Participation in the Project

1. Geographic communities not directly affected by the project, but nevertheless wanting to participate
2. Communities of interest representing groups without a formal base in the affected area (e.g. regional/provincial/federal/international level NGO, Aboriginal, business, service, women, religious, justice group, academics, professional organisations, experts in social or technical issues etc).

Passive Communities:

1. Members of the general public or other communities – who may/or may not be organised, but only want basic information, not involvement
2. People who do not know their interests are being affected
3. People who do not wish to get involved

4.4 Benefits of Public Engagement and Tenets of a Process Based on Justice

Yosie and Herbst (1998, 1) assert that "Stakeholder involvement in environmental decisionmaking is inevitable and will continue to expand". Among other things, this expanded role has been driven by lack of public trust, increasing expectations for environmental quality, citizens' enhanced capacity to participate; greater access to information technology and agency policy commitments to increase stakeholder participation. According to Beierle and Konisky (2001, 515) there are four potential benefits from broad stakeholder participation in environmental decision-making: "(1) increasing the quality of decisions; (2) improving relationships among important players in the decision process; (3) building capacity for managing environmental problems; and (4) leading to real improvements in environmental quality". Multi-stakeholder processes are crucial to sustainable development because without broad agreement, decisions made will be difficult to implement (Hemmati 2002). Other benefits and insights regarding these types of engagement processes have been summarized in the Table in Appendix A. The Table provides a cross-section of ideas about public engagement from a wide variety of authoritative sources including the United Nations, the OECD and the International Association for Public Participation. Virtually all of the ideas presented in the body of this report are echoed by these sources.

A particularly important example of innovative thinking around the issue of public engagement in environmental decision-making is provided by the Aarhus Convention. In an elaboration of principle 10 of the Rio Declaration, the Aarhus Convention (1998), developed by the United Nations Economic Commission for Europe (UNECE) states that there are three key pillars to environmental decision-making: 'access to information, public participation in decision-making and access to justice in environmental matters'. According to the UNECE this

> links environmental rights and human rights. It acknowledges that we owe an obligation to future generations. It establishes that sustainable development can be achieved only through the involvement of all stakeholders. It links government accountability and environmental protection (UNECE).

According to Pring and Noe (2002), the unprecedented nature and importance of the UNECE treaty cannot be over stated since it is the first to exclusively focus on participation in environmental decision-making. Among other things the Convention requires that the concerned public must be informed, in an early and timely matter, of the proposed project as well as notified as to the identity of the decision-making authority and proposed process (Pring and

Noe 2002). The Convention's definition of the 'concerned public' reflects that put forward for stakeholders; it includes all those 'affected or likely to be affected by, or having an interest in, the environmental decision making'. Further, "environmental NGOs are automatically deemed to have an interest in any environmental decision-making" (Pring and Noe 2002, 43).

According to international law, justice in environmental matters centres on access to information, prevention of or compensation for environmentally damaging activity and the enforcement of environmental laws (Pring and Noe 2002). Article 9 of the Aarhus Convention sets out the parameters of justice within public participation. First, independent and impartial appeal processes must be in place to 1) review access to information requests that have been denied and 2) review substantive and procedural challenges to any decisions reached. Second, the public must have the right to sue where environmental laws are not being enforced. It is also generally recognized that of those who participate in environmental public participation processes, five groups tend to be the most margainalised and deserve special consideration. These include place-based communities, women, youth, NGOs and indigenous peoples (Pring and Noe 2002).

Based on the Aarhus Convention, public participation requires "(i) education, (ii) access to information, (iii) voice in decision-making, (iv) transparency of decisional processes, (v) post-project analysis and monitoring, (vi) enforcement, and (vii) recourse to independent tribunals for redress" (Barton 2002, 79). Regardless of the form of public participation, such as demonstrations, plebiscites, protest campaigns, public inquiries, consultation, advisory committees, and so on, the United Nations Economic Commission for Europe's three pillars requires attention to the following issues (Barton 2002).

- Assessment of resources required (knowledge of technical information and procedures, financial costs)
- Need for direct public participation with decision-maker rather than third party
- Scope of issues should be open for discussion
- Range of possible outcomes should be open for discussion (including project termination)
- Ongoing processes that allow the development of knowledge and relationships among stakeholders should be provided
- The focus should be on dialogue (rather than 'speaking past each other)
- Attention should be given to understanding and acknowledging underlying world views
- There must be representation of all significant community sectors
- Particular attention to Aboriginal peoples should be required as well as the acknowledgement of their rights and need to culturally appropriate participation

These guidelines provide a comprehensive, 'best practices' approach for achieving public participation that will achieve many of the benefits listed above as well as promoting justice and fairness for all involved. They also overcome the tendency of stakeholder processes to reinforce status quo relationships either within or between communities.

4.5 Stakeholder Community Engagement – Challenges

Meeting the demands of a rigorous public engagement process, such as that demanded by the Aarhus Convention, is exceedingly difficult. This section outlines some of the more common

pitfalls outlined in the literature. In terms of sustainable development these processes should only be undertaken when the possibility for dialogue exists and the reconciliation of interests seems possible (Hemmati 2002). Multi-stakeholder processes should not be considered a panacea for all kinds of problems and should not be used where there is no possibility for the emergence of a common goal. Barton (2002) warns that public participation processes may not lead to better decisions if the process favours the views of vocal minorities rather than more widely held, but less vehemently expressed views in the wider community (see also Grimble et al. 1993) . He also suggests that public participation processes may lead to decisions that please virtually no one by trying to appease all participants or may have difficulty striking a balance among local, regional and national stakeholders. Delays and significant extra expenses could also result from extensive participation; although these costs can be defended as necessary side effects of democratic processes that enhance 'environmentally sound decision-making'. Another significant problem may result "if an agency goes through the motions without any intention to take the participation seriously" (Barton 2002, 108), or if some participants are co-opted by dominant perspectives (Murphree et al. 1996)[6]. The amount of information required for environmental decision-making may overwhelm lay participants (Pring and Noe 2002). Finally, if public participation processes do not acknowledge the resource disparities among stakeholders (e.g. the rich and well represented, poor aboriginal groups, under funded NGOs, unorganized publics, etc.) then the process may not achieve justice. Rather it would serve merely to hold "a mirror up to the pattern of power in the community" (Barton 2002, 109) and may lead to the exacerbation of power imbalances.

Two other challenges may affect the successful use of stakeholder processes involve the measurement of stakeholder processes and results and the integration of stakeholder participation and decision-making processes (Yosie and Herbst 1998). Prior to establishing any metrics, it is first necessary to determine the goal of the process. Formal measurement should include process, outcome and cost indicators. As for the latter challenge, the integration of participation, the concern is that engagement processes often do not 'meaningfully intersect' with decision-making, beyond the need to meet legislated or administrative requirements. Thus, even though agencies and policies are evolving towards increased participation, stakeholders, especially those with limited resources, are finding it increasingly difficult to participate in a proliferating number of processes; government agencies may use stakeholder processes to avoid making difficult, acrimonious decisions; and many stakeholder processes that focus on natural resource issues, tend to disenfranchise environmental groups whose constituency is predominantly urban.

Jackson (2001) further cautions that the objective for public engagement should guide the characteristics of the mechanism chosen. For instance, if the objective of the process is to inform and educate the public, then one-way communication mechanisms are appropriate. To test reactions, seek ideas and alternative solutions, two- way mechanisms should be employed. Finally, achieving consensus – defined as a 'process of arriving at a decision communally' – requires shared decision-making (Jackson 2001, 144). She maintains that 1) only those

[6] Murphree et al. (1996) maintain that co-optation can occur through three main mechanisms, 1) channeling: focusing oppositional perspectives into organized, manageable communities that can then be controlled by dominant decision-makers, 2) inclusion/participation: allowing communities to participate in the discussion without affecting the outcomes, 3) salience control: the appeasement of community concerns by appearing to address their issues (while in reality, dominant positions have not changed).

stakeholders who are informed, educated, trust the organisation and other stakeholders, and are committed to the process can be expected to be involved in the generation of ideas and consensus-oriented activities and can contribute effectively to the decision-making process and 2) various stakeholder processes should typically be undertaken simultaneously to meet the needs of the groups involved.

Likewise, Petts (2004, 117) also maintains that stakeholder/public participation can be utilised to achieve a number of objectives, including the enhancement of democracy, institutional legitimacy, procedural fairness, social learning, public trust, quality assurance and the incorporation of social values into decision-making. She suggests that stakeholder and public engagement should be incorporated into the following aspects of decision-making about complex risks: scoping of issues, defining the nature of data required, deciding who has or should gather data, evaluation of uncertainty, project assessment and oversight, and finally, evaluation of the project.

5.0 Communities and Facility Siting Processes

Although siting is not the main focus of this paper, it is clear that both place-based and interest-based communities will play an important role once the NFW management strategies begin to focus on implementing a specific management option. Thus, provided below is a brief summary of some of the important critiques of traditional approaches to siting, as they impinge on the issue of community. Many of the ideas discussed more broadly in earlier parts of this report are repeated here under the specific context of siting. It is beyond the scope of this paper to detail the types of siting processes that could be undertaken and their associated strengths and weaknesses. The NWMO has stated that it will look for a willing host community, hence comment is restricted to the specific consideration of the voluntary siting process[7].

The voluntary siting process has been recommended as a replacement to traditional top-down decision making processes that imposed siting decisions onto unwilling communities. One of the problems associated with top down siting processes is the often vehement opposition of local residents to the proposed facility. Local community opposition – in placed-based communities – is sometimes accused of NIMBY (Not-in-my-back-yard) attitudes. (For in-depth discussion of these issues see Munton 1996; Boholm and Lofsted 2004; Gerrard 1994 and many others). It is said that the parochial interests of a small group of local residents, the 'NIMBYs', over-ride the needs of society as a whole and derail projects that will have wider societal benefit. This utilitarian argument, based on the idea that the greatest good for the greatest number of people should guide our decision-making, avoids addressing many thorny issues. For instance, the imposition of a facility on a community contravenes basic democratic principles; imposition denies people the right to make decisions about activities that directly affect them. The appeal to democracy gets to issues of procedural fairness in that it emphasizes the need for open, inclusive and transparent processes in which all communities can participate. Second, the label truncates discussion regarding the fairness of the distribution of risks and benefits across society and the justice associated with the imposition of risks on particular communities. Third, the NIMBY label avoids discussing more fundamental questions about what types of risks society ought to be

[7] The voluntary siting process assumes that a geographic community will offer to host the proposed facility, rather than a facility being imposed on the community. For more details see Kuhn and Ballard (1998)

exposed to. This gets to questions of such issues as energy choice and waste production. It also requires discussion regarding which risks are perceived as acceptable on balance, when traded-off against the accrued benefits. Fourth, the appeal to NIMBY obscures the interconnection and overlap within and among various communities and scales of interests. For instance, in additional to place-based communities, typically there are also communities of interest (either locally, regionally, nationally or internationally) that may have concerns about the facility. Further, empirical investigation must be undertaken to evaluate to what extent community leadership positions reflect that of their membership; symmetry of perspective is not guaranteed. Fifth, despite the rhetoric that proposed facilities will be safe, there is ample evidence world-wide that safety predictions can be wrong. NIMBY reflects this abiding distrust, among some communities, of technological fixes and expert optimism.

Given the critique of NIMBY and traditional siting approaches, many authorities now advocate for the use of the voluntary siting approach. Several assumptions about communities underlie this siting approach; these are grouped below into four categories.

Procedural Considerations

The voluntary siting process assumes that at least one place-based community will step forward and be willing to accept a nuclear waste facility. It is assumed, that on balance, it will be possible to find a host community that will perceive the potential benefits as outweighing the risks.

It is presumed that place-based communities are one of the principal communities that have a stake in deciding where a facility should be sited. Although it can be argued that they have a key role to play in decision-making, the volunteer siting process over-emphasizes their importance and often marginalises other place-based and interest-based communities.

The host community rhetoric generally 'localizes' siting, denying a legitimate role for communities of interest not based in these local spaces.

Community Composition and Interaction

It is often construed that consultation with community leaders represents sufficient and inclusive participation for the place-based community. However, there may be a 'disconnect' between elites and others in the group as well as the presence of several communities within a given geographic area.

Place-based communities tend to be thought of as homogeneous entities, rather than incorporating a range of interests and perspectives.

The voluntary approach assumes that the boundary of the host community will coincide with that of the municipal boundary. However, political boundaries often do not reflect the way in which actual communities interact on a daily basis or how they perceive their boundaries. These perceptual and functional boundaries involve such considerations as school or social services

districts, consumer shopping and entertainment patterns, employment catchments, cultural and religious affinities, and a plethora of other considerations (Kuhn and Murphy 2004).

Justice

While the volunteer siting model provides some attention to justice for the host community, far less attention is paid to the needs and concerns of adjacent, downwind/downstream and transportation corridor communities.

The voluntary siting model, focused at the local level, denies justice and participation for communities who wish to discuss issues beyond 'is this the best site?' (e.g. issues of energy choice and waste production). Local-level focus also avoids questions of distributional justice (e.g. why should an already poor, marginalised community take on yet more risk?)

The model takes for granted that communities have the capacity to know their own interests, will volunteer to host a facility on a rational, knowledgeable basis, and that marginalised communities will not feel pressured to accept a facility due to the economic pay-offs. In this way a discussion of the economic and power imbalances that exist among different communities, at different scales, is avoided.

Sustainable Development

Sustainable development changes the dynamic of decision-making away from purely economic considerations to the broader inclusion of social and ecological criteria. The system orientation of this approach also demands understanding the way projects can have synergistic, compounding or feedback impacts both on local and wider environments and communities. The voluntary siting process tends to isolate the local contexts and avoids attention to these broader scale implications.

It is not clear to what extent the model can incorporate intergenerational fairness. Although it may be the case that local 'communities' will incorporate unborn children into their decision-making rubric, this cannot be guaranteed. Further, it would be difficult to judge how the community's current wants and needs are balanced-off against those of future generations.

The localized, single-minded attention on siting, avoids involving a range of communities in a broader dialogue regarding the 'best' approaches to achieve sustainable development.

6.0 Assessment of Community

Once communities have been identified and they begin to participate in various engagement processes, including siting, it will be important to assess not only the composition of communities, but also their capacity to participate in a meaningful way as well as their ability to be resilient and adaptable when dealing with the possibility of change. This section outlines a variety of approaches that can be undertaken to evaluate community capacity[8]. These are

[8] See Golder Associates Ltd., and Gartner Lee Limited (2005) *Assessment of Benefits, Risks and Costs of Management Approaches for Used Nuclear Fuel by Illustrative Economic Region* at

broadly grouped under two approaches, the first is based on the idea of 'community well-being' the second is grouped around the concept of sustainable development. As endorsed by the Seaborn Panel report (1998, 55), these approaches tend to incorporate, to a greater or lesser extent, the World Health Organisation's broad definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

6.1 Community Well-being

In the literature, the concept of community well-being is invoked as a methodological approach to understanding the health, resiliency and capacity within communities. Typically, the concept is applied to place-based communities and communities of interest rooted in particular local contexts. There is no clear definition of community well-being. The Merriam Webster Online dictionary defines 'well-being' as the state of being healthy, happy or prosperous.'[9] Although this seems relatively straightforward, it is clear that being happy, healthy and prosperous are open to a wide range of interpretations. Further, as has been explored in detail earlier in this paper, the definition of community and its boundaries is also complex and open to debate. Consequently, prior to being able to begin any evaluation of community well-being, some agreement will first have to be reached regarding the nature and boundaries of the 'community'.

A review of the community well-being literature reveals a number of definitions including:

- Community well-being is the fulfillment of the aspirations of different individuals and groups in society. Elements of well-being include self-determination, mutual recognition and interdependence and equality. It also involves security, citizenship and democratization as contributing factors (Hay et al. 1993)
- Reflecting the World Health Organisation's concept of a healthy community, well-being can be conceived as the creation of physical, psychological and social environments that allow people to develop to their maximum potential (Ramsey and Smit 2002)
- The concept recognizes the psychological, cultural and social requirements of people, and their communities. This requires attention to economic and social structures (Ribova 2000)
- Well-being is about 'thriving not just surviving', being hopeful, healthy and sustainable. Community well-being is influenced by positive affirmation of worth; access to local infrastructure, services and opportunities; and safety and security (The Scottish Development Centre for Mental Health 2003).
- Community well-being must incorporate the consideration of five community factors. These are the community as a place to live, a social community, an economic community, a political community, a personal/psychological space and as part of the broader landscape (Christakopoulou et al. 2001).
- Community well-being incorporates economic (poverty, employment), social (social inclusion, education, housing) and physical (personal health and safety) well being (City of Calgary 2005)

---

http://www.nwmo.ca/Default.aspx?DN=1231,1090,199,20,1,Documents for an example of the application of two of these approaches.

[9] (http://www.m-w.com/).

- The Human Development Index (UNDP) considers three dimension of well-being: health, knowledge and access to material goods. The HDI is comprised of three sub-indices: life expectancy, educational attainment and gross domestic product (Cooke et al. 2004)
- Community well-being must consider natural, physical, financial, social and human capital (Pretty 1999 in Cuthill 2002; see also Ribova 2000).

Examination of the community well-being literature suggests that embedded in most of these definitions is attention to economic well-being as a key element. Several of these definitions also emphasise security and health, while others incorporate attention to social and human capital (e.g. social inclusion, education attainment, the social community, psychological space). To a lesser extent, others focus on such elements as democratisation, access to services or resources and equity. Finally, a few mention the physical environment, natural capital or access to resources. These latter definitions bring in the biophysical world as an important element of community well-being.

Given this diversity of definitions it seems clear that great care must be taken in the choice of definitions. The definitional exercise must be undertaken with thorough understanding and agreement regarding the underlying values and perspectives associated with the definition as well as the purpose of proposed analysis (Cuthill 2002). In other words, the way in which the question of community well-being is framed and the definition chosen will fundamentally influence the subsequent analysis and the expected outcomes. For instance, if the analysis of community well-being is underpinned by a desire for sustainable development, the definition will need to incorporate attention to the biophysical world and issues of intra- and inter-generational equity.

There are also two other considerations implicated in the community well-being approach. First, there is a close and interactive relationship among the definition chosen, the indicators needed for evaluation, the type of data collection that will be required (qualitative/quantitative) and the resources available (time, money, personnel) (see Appendix C, Table 2). For instance, Cooke et al. (2004) in their evaluation of community well-being among Canadian Aboriginal peoples, focused on the United Nations Human Development Index because these were quantitative measures that were easily obtainable from Canadian census data. However, they are quick to admit that this approach does not incorporate environmental health, equity, security, etc. Similarly, the City of Calgary (2005) chose to focus on quantitative indicators, but had access to a wider range of local information about economic, social and physical well-being. Thus, they include such indicators as children in single family households, official language ability, dwellings requiring major repair, etc. At the other end of the spectrum, Christakopoulou et al. (2001) in their evaluation of five aspects of the local community undertook a questionnaire approach to gather new data, rather than using existing information. In contrast, Cuthill (2002) in his assessment of the physical, social and human capital aspects of community well-being chose to utilise available quantitative data in addition to undertaking a community survey and in-depth qualitative interviews. This approach was much more comprehensive in both its definitions and data collection, but also required the most intensive use of resources. Thus, the bottom-line for any use of the community well-being approach is that there will always need to be trade-offs and decisions made among definitions chosen, indicators used and so on. To be

legitimate to the community, the approach must also incorporate a broad range of perspectives and the research must be undertaken in a transparent manner.

Second, community well-being should be seen as an on-going process of community change – it is not a fixed state. Hence, assessments of community well-being often include the evaluation of the change over time (Hay et al. 1993). In the case of facility siting, this may involve baseline analysis in a place-based community prior to project development and then subsequent re-evaluation of the community as the project progresses. In the Waste Isolation Pilot Program (WIPP) in New Mexico, for instance, one aspect of health monitoring – exposure to radionuclides – has been ongoing since before the facility began to import waste. The Carlsbad Environmental Monitoring and Research Center, set up in conjunction with the local university, tests the environment for air emissions as well as undertaking whole body monitoring. In whole body monitoring, members of the community have been tested on a regular basis to check for radiation exposure. To date no exposures have been detected. This kind of approach, checking for change against the baseline, would appear to provide important information about well-being within the community.

6.2 Sustainable Development and Communities

Another opportunity to assess communities is provided by the sustainable development literature. The Minnesota Office of Environmental Assistance (2004), for instance, maintains that a sustainable community will persist over generations, whilst 'enjoying a healthy environment, prosperous economy and vibrant civic life'. Key criteria for the assessment of sustainability are grouped around four interrelated elements. These are community development, ecological health, economic health, and social equity. Similar to both the Minnesota approach as well as some of the approaches to community well-being, the Sustainable Livelihoods framework, developed and supported by the British Department for International Development, incorporates a range of social, economic and environmental factors into their assessments. These factors are conceptualised in terms of human, natural, financial, social and physical capital. This particular framework is designed to evaluate poverty and promote its reduction (see Table 2).

Bryant (1999) approaches the assessment of sustainability by paying attention to both process and structural issues. While this changes the emphasis from a more sector-based assessment, notice that some of the criteria overlap with that described above and presented in Table 2.

Process:

- Active public participation should be sought and encouraged
- Need effective communication between organisations in the social, environmental and economic domains
- Must be consideration of social and environmental issues before decisions are taken
- Decision-making must balance social, environmental and economic imperatives
- Youth input must be sought
- Input from non-residents should be welcomed
- Support the mobilisation and capacity enhancement of marginalised groups
- Need ongoing community planning that is transparent and accessible to citizens

Structures

- All communities must be recognized as important to community well-being
- All communities must be effectively represented
- There must be a permanent structure within which key sustainability debates can occur
- The formal representative body should interact with neighbouring communities
- Community leaders should recognize and support citizen groups and other organisations
- Ensure that someone (from key groups, leadership) is responsible for communicating among other groups
- A community plan should be developed that incorporates the planned actions of all communities
- Structures should be flexible enough to change as conditions warrant

6.3 Critique of Approaches to Community Assessment

In terms of the community issues raised in this paper and the context of nuclear fuel waste management, it seems clear that assessment of community well-being should bear in mind several caveats.

Most of these assessment frameworks were developed with specific goals in mind, none of which seem to be related to the impact of environmental management decisions. Thus, the extent to which these approaches could be used in the context of project implementation would need to be assessed.

An important component of these approaches is that they break through the consideration of community as only place-based entities and lean towards the realisation that communities are indeed, networks of relationships with fluid boundaries to which people have multiple place-based and interest-based affinities. Despite these innovations, it must be recognized these approaches are best applied within the confines of specified geographic areas such as municipal or township boundaries. The assessment of interest-based communities that do not have a base in particular places have not typically been assessed by these methodologies.

7.0 Conclusion

The management of Canada's nuclear fuel waste to-date, has been abstract and placeless. Thus, proposed solutions are often presented as concepts to be located somewhere. Continued refinement of our understanding of nuclear fuel waste management requires increased precision about options and places. Communities are very much at the heart of places and the heart of our discussion at all geographic scales. Communities are also about relationships and networks of interests within neighbourhoods, towns and between organisations at all geographic scales.

Communities are networks of relationships with fluid boundaries, to which people have multiple place-based and interest-based affinities as well as connections to both the human and non-human world. Communities are dynamic. Although communities are sometimes conceived to be stable entities they are often transformed as a result of internal dynamics. Communities also change as a consequence of their relationships with 'outside' forces. This is particularly important when contemplating the construction and operation of hazardous waste facilities. The very act of considering such a facility will alter the internal dynamics of a community and the

perception that others have of that community. New relationships will be forged (e.g. amongst those in favour of construction) and new linkages established (e.g. between local level actors and government agencies). These in turn may undergo further transformation or entrenchment.

Based on this articulation of what communities are and how they change as well as the discussion in this report, we identify three principal challenges in managing nuclear fuel waste

- The identification of communities
- The assessment of communities
- The involvement and engagement of communities

This report has provided some preliminary discussion regarding these challenges.

Although there are not easy or straightforward resolutions to these challenges, we conclude with some ideas regarding their possible amelioration by environmental management organisations.

First, communities should not be considered static entities with easily defined spatial and temporal boundaries. Instead the *process* of community involves a shifting landscape of relationships, over time and space. Management organisations must develop a vigilant methodological approach to continuously (re)assess the communities who have a stake (either self-defined or defined externally) in their various undertakings.

Second, a vigilant methodological approach must begin at the problem definition stage. It is when the problem is first being scoped that management organisations can begin to identify their stakeholders and establish a positive relationship with these groups. Once the management organisation sets out a tentative set of goals, it should then allow communities to provide feedback and, more importantly, meaningful influence, on the goals. The management organisation should allow communities to self-identify as stakeholders as well as seeking out others who may need some assistance to understand the way in which the project may affect them. Broadly open forums, such as those provided by environmental assessment processes, should be provided to allow a range of people to present their views. Then, in order to avoid the homogenisation of various perspectives, which may lead to disenfranchisement, cynicism and conflict, the management organisation should arrange to provide attribution of views to particular communities (e.g. transcripts providing verbatim documentation).

Third, although there is a tendency to scale the waste problem to 'finding the best site', defining the problem in this way will inevitably alienate many communities and ratchet up the acrimony surrounding the project. The environmental justice summit, for instance, clearly scaled up the issue to address waste production in the debate about waste management solutions. Yet, the conundrum for management organisations is that their mandate often precludes addressing the very societal contexts and concerns that may derail implementation of their project. Possible ways out of this dilemma include 1) involving a broad societal cross section in the management organisation's governance and decision-making processes, 2) taking as broad an interpretation as possible of the organisation's mandate; and 3) lobbying the government to hold a debate about these broader issues (all three undertaken with varied success by the Seaborn Panel).

Fourth, the comprehensive assessment of communities and their well-being must involve attention to socio-economic and cultural contexts, to community marginality or power positioning and to the community's connections to both their built and natural environments[10].

Fifth notions of justice and fairness suggest that, within the undertaking, management organisations cannot be viewed as neutral arbiters. Since these organisations typically have extensive access to resources and decision-makers (particularly as compared to some marginalised communities) they must recognise their preferential positioning, identify systemic and structural barriers that inhibit the participation of interested communities, and actively work to meet the changing and evolving needs of changing and evolving communities.

Sixth, when a resource management organisation proposes a new policy, rule, project, etc. it positions itself both as an extrinsic and intrinsic force acting on affected communities. The initiative will lead some communities to take on the additional title of stakeholder, while also leading to the formation of new communities. In a very real way proponents become implicated in the construction, transformation and, perhaps, also the disenfranchisement of communities. Thus, although initially acting as the extrinsic force affecting communities, proponents become intrinsically involved in the identity of their stakeholder communities.

Seventh, it is important for management organisations to understand that the heterogeneity or homogeneity of communities shifts depending on the spatial and temporal scale of the analysis that is undertaken. For instance, there are often broad-brush distinctions made between Aboriginal/non-Aboriginal groups (e.g. ecological vs. utilitarian worldviews) and between present and future generations (e.g. concern over immediate consumption vs long-term sustainability). However, these generalities will be of minimal value to proponents. Instead, finer scale analysis will be required to understand the vertical and horizontal relationships within and among communities.

Eighth, environmental management organisations have typically focused on the placed-based communities located nearest to their proposed project. The focus needs to shift towards understanding the range of both place and interest-based communities, at various spatial and temporal scales, that may be affected by the initiative.

[10] Although mentioned less emphatically in the report, the importance of this point was emphasized by Maria Paez Victor, in her review of the paper.

Literature Cited

Aarhus Convention. 1998. United Nations Economic Commission for Europe. Available at <http://www.unece.org/env/pp/>.

Barton, B. 2002. Underlying concepts and theoretical issues in public participation in resources development. In Zillman, D.N., Lucas, A.R., and G. Pring (ed). *Human Rights in Natural Resource Development: Public Participation in the Sustainable Development of Mining and Energy Resources.* Oxford University Press. Oxford, England.

Beierle, T. C. and D. M. Konisky. 2001. What are we gaining from stakeholder involvement? Observations from environmental planning in the Great Lakes. *Environment and Planning C: Government and Policy*, 19: 515-527.

Berry, G. R. 2003. Organizing against multinational corporate power in cancer alley: the activist community as primary stakeholder. *Organization and Environment*, 16(1): 3-33.

Blowers, A. and P. Leroy. 1994. Power, politics and environmental inequality: a theoretical and empirical analysis of the process of 'peripheralisation'. *Environmental Politics*, 3(2): 197-228.

Boholm, A. and R. Löfstedt (ed). 2004. *Facility Siting: Risk, Power and Identity in Land Use Planning.* Earthscan. London, England.

Brosius, J. P., Lowenhaupt Tsing, A. and C. Zerner. 1998. Representing communities: histories and politics of community-based natural resource management. *Society and Natural Resources*, 11: 157-168.

Bryant, C. 1999. Community change in context. In Pierce, J. T., and A. Dale (eds). *Communities, Development, and Sustainability Across Canada.* UBC Press. Vancouver, British Columbia.

Bullard, R. 1999. Dismantling environmental racism in the USA. *Local Environment*, 4(1): 5-19.

Christakopoulou, S., Dawnson, J. and A. Gari. 2001. The community well-being questionnaire: theoretical context and initial assessment of its reliability and validity. *Social Indicators Research*, 56(3): 321-351.

City of Calgary. 2005. *Indices of Community Well-Being for Calgary Community Districts.* Community Services Department, Community Strategies Business Unit, Policy and Planning Division. Calgary, Alberta.

Cloke, P., Milbourne, P. and R. Widdowfield. 2000. Partnership and policy networks in rural local governance: homeless in Taunton. *Public Administration*, 78(1): 111-113.

Coleman, W. D. and G. Skogstad. 1990. Policy communities and policy networks: a structural approach. In Coleman, W. D., and G. Skogstad (eds). *Policy Communities and Public Policy in Canada: A Structural Approach*. Copp Clark. Mississauga, Ontario.

Cooke, M., Beavon, D., and M. McHardy. 2004. *Measuring the Well-Being of Aboriginal People: An Application of the United Nation's Human Development Index to Registered Indians in Canada, 1981-2001*. Strategic Research and Analysis Directorate, Indian and Northern Affairs Canada. Ottawa, Ontario.

Crawford, A. 1996. The spirit of community: rights, responsibilities, and the communitarian agenda. *British Journal of Law and Society*, 23: 247-262.

Cuthill, M. 2002. Coolangatta: A Portrait of Community Well-Being. *Urban Policy and Research*, 20(2):187-203.

Davies, A. R. 2002. Power, politics and networks: shaping partnerships for sustainable communities. *Area*, 34(2): 190-203.

Day, G. 1998. A community of communities? Similarity and Difference in Welsh rural community studies. *The Economic and Social Review*, 29(3): 233-257.

Day, G., and J. Murdoch. 1993. Locality and community: coming to terms with place. *The Sociological Review*, 40: 82-111.

Department For International Development (DFID). *Sustainable Livelihoods Guidance Sheets*, Great Britain, Available at <www.livelihoods.org/info/info_guidancesheets.html>

Douglas, M. 1991. Risk acceptability according to the social sciences. In Marske, C.E. (ed). *Communities of Fate: Readings in the Social Organization of Risk*. University Press of America. New York, NY.

Etzioni, A., and P.R. Lawrence (eds). 1991. *Socio-economics: Towards a New Synthesis*. M. E. Sharpe Inc. Armonk, NY.

Field, R. C. 1998. Risk and justice. In Faber, D. (ed). *The Struggle for Ecological Democracy*. The Guildford Press. New York, NY.

Fineman, S., and K. Clarke. 1996. Green stakeholders: industry interpretations and response. *Journal of Management Studies*, 33(6): 715-730.

Freeman, R. E., and D. L. Reed. 1983. Stockholders and stakeholders: a new perspective on corporate governance. *California Management Review*, 25(3): 88-106.

Gerrard, M. B. 1994. *Whose Backyard, Whose Risk: Fear and Fairness in Toxic and Nuclear Waste Siting*. The MIT Press. London, England.

Golder Associates Ltd., and Gartner Lee Limited. 2005. *Assessment of Benefits, Risks and Costs of Management Approaches for Used Nuclear Fuel by Illustrative Economic Region.* Nuclear Waste Management Organization. NWMO Background Papers. Toronto, Ontario.

Grimble, R., M. K. Chan, J. Aglionby and J. Quan. 1993. *Trees and Trade-offs: A Stakeholder Approach to Natural Resource Management*. The Sustainable Agriculture Programme of the International Institute for Environment and Development. Gatekeeper series no.52.

Harvey, D. 1993. Class relations, social justice and the politics of difference. In Keith, M., and S. Pile (eds). *Place and the Politics of Identity*. Routledge. London, England.

Hay, D. I. 1993. *Well-Being: A Conceptual Framework and Three Literature Reviews.* Social Planning and Research Council of B.C. (SPARC). Vancouver, British Columbia.

Hemmati, M. 2002. *Multi-stakeholder Processes for Governance and Sustainability: Beyond Deadlock and Conflict*. Earthscan Publications Ltd. London, England.

Hoffman, St. H. 2001. Negotiating eternity: energy policy, environmental justice, and the politics of nuclear waste. *Bulletin of Science, Technology and Society*, 21: 456.

Hunold, C., and I. M. Young. 1998. Justice, democracy, and hazardous siting. *Political Studies,* 46(1): 82-95.

Imrie, R., and S. Wilks-Heeg. 1996. Viewpoint: Stakeholder and the local economy. *Local Economy*, 11: 2-6.

Jackson, L. S. 2001. Contemporary public involvement: toward a strategic approach. *Local Environment*, 6(2): 135-147.

Jones,. 1997. communitarian

Kerans, P and G. Drover. 1993. *Well-Being: A Conceptual Framework and Three Literature Reviews.* Social Planning and Research Council of B.C. (SPARC). Vancouver, British Columbia.

Kuhn, R. G., and K. R. Ballard. 1998. Canadian innovations in siting hazardous waste management facilities. *Environmental Management,* 22: 533-545.

Kuhn, R. G. and B. L. Murphy. 2003. *An Examination of Economic Regions and the Nuclear Fuel Waste Management Act*. Nuclear Waste Management Organization. NWMO Background Papers. Toronto, Ontario.

Liepens, R. 2000. New energies for an old idea: reworking approaches to 'community' in contemporary rural studies. *Journal of Rural Studies*, 16: 23-35.

Lucas, A. R. 2002. Canadian participatory rights in mining and energy resource development the bridges to empowerment. In Zillman, D.N., Lucas, A.R., and G. Pring (ed). *Human Rights in Natural Resource Development: Public Participation in the Sustainable Development of Mining and Energy Resources.* Oxford University Press. Oxford, England.

Madsen, H., and J. P. Ulhøi. 2002. Integrating environmental and stakeholder management. *Business Strategy and the Environment*, 10: 77-88.

Marsh, D. (ed). 1998. *Comparing Policy Networks.* Open University Press. Philadelphia, PA.

McHardy, M., and E. O'Sullivan. 2004. *First Nations Community Well-Being in Canada: The Community Well-Being Index (CWB),* Available at < http://www.ainc-inac.gc.ca/pr/ra/cwb/index_e.html>

Miller, B. 1992. Collective action and rational choice: place, community, and the limits to individual self-interest. *Economic Geography*, 68: 22-42.

Miller, B. 1992. Collective action and rational choice: place, community, and the limits to individual self-interest. *Economic Geography*, 68: 22-42.

Minnesota Office of Environmental Assistance. 2004. *Sustainable Communities*. Available at <http://www.moea.state.mn.us/sc/index/cfm>.

Munton, D. (ed). 1996. *Hazardous Waste Siting and Democratic Choice.* Georgetown University Press. Washing, D.C.

Murphree, D. W., Wright, S. A., and H. R. Ebaugh. 1996. Toxic waste siting and community resistance: how cooptation of local citizen opposition failed. *Sociological Perspectives*, 39(4): 447-463.

Newman, O. 1980. *Community of Interest*. Anchor Press/Doubleday. Garden City, New York.

Nuclear Waste Management Organization (NWMO). 2005. *Choosing a Way Forward: The Future Management of Canada's Used Nuclear Fuel.* Draft Study Report. Toronto, Ontario.

Nuclear Waste Management Organization (NWMO). 2004. *Assessing the Options: Future Management of Used Nuclear Fuel in Canada*. NWMO Assessment Team Report. Toronto, Ontario.

Owens, S. 2004. Siting, sustainable development and social priorities. *Journal of Risk Research*, 7(2): 101-114.

Paez Victor, M. 1993. *Framework for the Social, Cultural and Economic Impact Assessment of the Used Fuel Disposal Concept.* Support document A4 to the Ontario Hydro Pre-

Closure Environmental and Safety Assessment of the Used Fuel Disposal Concept, Ontario Hydro, September.

Petts, J. 2004. Barriers to participation and deliberation in risk decisions: evidence from waste management. *Journal of Risk Research*, 7(2): 115-133.

Pring, G. and S.Y. Noé. 2002. The emerging international law of public participation affecting global mining, energy, and resources development. In Zillman, D.N., Lucas, A.R., and G. Pring (ed). *Human Rights in Natural Resource Development: Public Participation in the Sustainable Development of Mining and Energy Resources*. Oxford University Press. Oxford, England.

Ramsey, D. and B. Smit. 2002. Rural community well-being: models and application to changes in the tobacco-belt in Ontario, Canada. *Geoforum*, 33(3): 367-384.

Rekmans, L., K. Lewis and A. Dwyer. 1999. *This is My Homeland: Stories of the Effects of Nuclear Industries by People of the Serpent River First Nation and the North Shore of Lake Huron.* Serpent River First Nation and Restoring the Nuclear Great Lakes Basin, Peace Education Center.

Revill, G. 1993. Reading Rosehill: community, identity and inner-city Derby. In Keith, M., and S. Pile (eds). *Place and the Politics of Identity*. Routledge, London: 117-140.

Rhodes, R. A. W. 1990. Policy networks: a British perspective. *Journal of Theoretical Politics*, 2(3): 293-317.

Ribova, L. 2000. *Individual and Community well-being*. The Artic. Stefansson Artic Institute. Available at < http://www.thearctic.is/articles/topics/wellbeing/enska/>.

Scholsberg, D. 2004. Reconceiving environmental justice: global movements and political theories. *Environmental Politics*, 13(3): 517-540.

Seaborn Panel. 1998. *Nuclear Fuel Waste Management and Disposal Concept Environmental Assessment Pane Report.* Canadian Environmental Assessment Agency. Minister of Public Works and Government Services Canada. Ottawa, Ontario.

Short, J. F., and E. A. Rosa. 2004. Some principles for siting controversy decisions: lessons from the US experience with high level nuclear waste. *Journal of Risk Research*, 7(2): 135-152.

Shrader-Frechette, K. 1991. *Ethical dilemmas and radioactive waste: a survey of the issues.* Discussion paper. Indiana University Press. Morton, Bloomington, Indiana.

Silk, J. 1999. Guest editorial: The dynamics of community, place, and identity. *Environment and Planning A*, 31: 5-17.

Smith, N. 1992. Contours of a spatialized politics: homeless vehicles and the production of geographic scale. *Social Text*, 33: 55-81.

Smith, P. 1995. *Aboriginal Participation in Forest Management: Not Just Another "Stakeholder"*. Position paper. National Aboriginal Forestry Association. Ottawa, Ontario.

Staeheli, L. A. 2003. Women and the work of community. *Environment and Planning A*, 35: 815-831.

Stedman, R. C., Parkins, J. R., and T. M. Beckley. 2004. Resource dependence and community well-being in rural Canada. *Rural Sociology*, 69(2): 213-234.

Sunley, P. 1999. Space for stakeholding? Stakeholder capitalism and economic geography. *Environment and Planning A*, 31(9-12): 2189-2205.

Swift, J. 1999. *Civil Society in Question.* Between the Lines. Toronto, Ontario.

The Scottish Development Centre for Mental Health, in association with Scottish Council Foundation and OPM. 2003. *Building Community Well-Being: An exploration of themes and issues – Project Summary Report*. The Scottish Executive. Edinburgh, Scotland.

Yosi, T. F., and T. D. Herbst. 1998. *Using Stakeholder Processes in Environmental Decisionmaking: An Evaluation of Lessons Learned, Key Issues, and Future Challenges*. Ruder Finn Washington. Available at <http://www.riskworld.com/nreports/1998/stakehold/html/nr98aa01.htm>.

Young, I. M. 1990. *Justice and the Politics of Difference*. Princeton University Press. Princeton, New Jersey.

APPENDIX A
Examples of Public Engagement Processes

Table 1		
Title/Date	**Author**	**Description**
Tools to Support Participatory Urban Decision Making (2001)	The United Nations Human Settlements Programme http://www.unhabitat.org/cdrom/governance/start.htm	This paper presents four phases that strengthen the Participatory Urban Decision-Making Process through the use of management tools. **Phase 1: Preparatory and Stakeholder Mobilization** emphasizes "inclusive" consensus built through meaningful consultations involving the full range of local participants especially those from marginalized groups through 3 main stages: Mobilising stakeholders; Issue and city profiling; and Identifying key issues. **Phase 2: Issue Prioritisation and Stakeholder Commitment** involves elaborating issues; building collaboration and forging consensus; and formalising commitment, which are all focused around the City Consultation tool – a participatory event for bringing stakeholders together to create a better understanding of issues, to agree on priorities, and to seek local solutions built around broad-based consensus. **Phase 3: Strategy Formulation and Implementation** highlights the use of task groups where stakeholders share information to evaluate options and elaborate approaches and activities, and involves formulating priority strategies; negotiating and agreeing on action plans; designing and implementing demonstration projects; and integrating projects and plans into strategic approaches. F**ollow-Up and Consolidation** is the final phase during which the action plans developed previously are implemented and during which the whole process is put into long-term use. This consists of four stages: Implementing action plans; monitoring and evaluation; up-scaling and replication; and institutionalisation.
Promoting Public Participation in e-Government (n/a)	S. Y. Suh http://6thglobalforum.org/download/eng/Promoting%20citizen%20participation(Dr.Suh_NCA).pdf	As e-government infrastructure is expanded and agency services are linked, citizens can take a leading role in interactions with the government. The relationship between the government and the people progresses from a one-way relationship where the government disseminates information on its own initiative or citizens access information upon their demand to a 2-way relationship of mutual feedback and finally to a partner relationship between the government and the people. To build a true citizen-oriented participatory e-government, it is necessary to for the system to be accessible, usable, responsive, and credible. Important considerations: importance of the feedback flow between citizens and government; all citizens regardless of their social or educational background should participate and express their opinions in the policy decision process; and the use of a multi-faceted approach to promote citizen participation should be implemented.

Engaging Citizens in Policy Making: Information, Consultation and Public Participation (2001).	OECD http://www.oecd.org/dataoecd/24/34/2384040.pdf	This policy brief describes a range of concrete measures and ten guiding principles for strengthening government relations with citizens and civil society. The guiding principles state that: strong **commitment** from all levels of government to information, consultation, and active citizen participation in policy-making is needed; citizens' **rights** to information, consultation and active participation in decision-making should be grounded in law or policy; there is a need for **clarity** in defining objectives and limits to information, consultation and active participation as well as the roles of government and citizens; that enough **time** be provided for effective participation and consultation, and that this be done early in the policy process; that information provided by government be **objective**; that financial, human and technical **resources** be available for effective participation in policy-making; that there should be **coordination** across government initiatives; that there should be government **accountability** to citizens to promote transparency; that **evaluation** of performance is necessary; and that governments benefit from **active citizenship**.
Building citizen participation: the purposes, tools & impact of involvement (2000).	James T. Ziegenfuss, Jr. http://www.clad.org.ve/fulltext/0038103.html	The author addresses the importance of citizen involvement in decision making for any public organization or government leader, and proposes how that can be done. It is the leader's role to create channels for citizen feedback, create opportunities for public consultation prior decision making, and allocate resources to support participation. In doing so, the public organization will benefit for example from improved quality of public products and services due to citizen feedback, and increased productivity as citizen ideas are adopted. Outlined, are twelve "tools of involvement" where citizen involvement is applied. They are: Design/Redesign Teams; Interest Groups; Town Meetings; Polling and Surveys; Internet Use and Websites; Advisory Boards; Quality Improvement and Reengineering Teams; Focus Groups; Ombudsperson; Citizen Study Teams; Youth and Senior [involvement in] Government; and Awards, Rewards and Ceremonies.
Stakeholder Involvement and Stakeholder Participation in EPA: Lesson Learned, Barriers and Innovative	EPA http://www.epa.gov/publicinvolvement/pdf/sipp.pdf	This U.S EPA report reviews the Agency's past efforts at involving stakeholders and the public in environmental decision making. Some key lessons learned speak to the significance of creating trust between the agency and participants and eliminating or minimizing the barriers that prevent that from happening. It is important to recognize these barriers to participation which include the perceived inability to influence issues, the lack of time to participate, difficulty in participating in technical discussions, and an overwhelming amount of reading. Furthermore, citizens may choose not to participate for social, historical or cultural reasons. Partnerships

Approaches (2001).		should be made with affected communities where credible data can be provided, involvement is established early in the process, and a trained facilitator is available to help during negotiations.
Constructive Engagement Resource Guide (1998).	EPA http://www.epa.gov/publicinvolvement/pdf/resolve2.pdf	This guide is an introduction to the value and approach of Constructive Engagement – any effort that brings together a diverse group of stakeholders (communities, workers, industry and government) – to cooperatively discuss their mutual concerns and a facility's environmental activities. As a value, Constructive Engagement believes that: people affected by the operations of an industrial facility have a right to know how the facility will affect them and to influence how these impacts are addressed; the interests of all stakeholder groups are legitimate and need to be taken into account in making decisions about industrial siting and operations, and that the best approach to promoting environmentally and community friendly practices, along with economically healthy industries, will develop if all groups have an opportunity to discuss their concerns and ideas with each other in a collaborative and constructive way. As an approach, Constructive Engagement processes are designed to provide forums in which meaningful and timely discussions can take place among workers, government regulators, industry representatives and community groups.
The Model Plan for Public Participation (2000).	EPA http://www.iap2.org/goto.cfm?page=http://www.epa.gov/publicinvolvement&returnto=displayassociationlinks.cfm	Four critical elements for conducting public participation are: **1. Preparation** which involves the development of goals and roles of those involved in community meetings, educating the community, regionalizing materials to ensure cultural sensitivity, and providing a facilitator who is trained in environmental justice issues; **2. Participants** – involving and identifying stakeholders from local community groups, government agencies, environmental and educational organizations, NGOs, industry and spiritual communities; **3. Logistics** – figuring out where, when, and how to conduct public meetings so that they are accessible, accommodating, and effective; **4. Mechanics** – providing meeting agendas and minutes and coordinating follow-up.
International Association for Public Participation Tool Box (2004).	International Association for Public Participation http://www.iap2.org/associations/4748/files/toolbox.pdf	This "tool box" presents over 45 different techniques of informing or involving the public on issues of concern, their advantages and disadvantages, and key points to consider when utilizing each method. For instance, Focus Groups provide an opportunity to test key messages prior to implementing a program and works best for select target audiences. However they can be relatively expensive and a skilled focus group leader is required to facilitate the process. On the other hand, Tasks Forces require members that are credible with the public, are time and labour extensive, but provides constructive opportunity for compromise.

APPENDIX B

PRINCIPLES OF ENVIRONMENTAL JUSTICE

PREAMBLE

WE THE PEOPLE OF COLOR, gathered together at this multinational People of Color Environmental Leadership Summit, to begin to build a national and international movement of all peoples of color to fight the destruction and taking of our lands and communities, do hereby re-establish our spiritual interdependence to the sacredness of our Mother Earth; to respect and celebrate each of our cultures, languages and beliefs about the natural world and our roles in healing ourselves; to insure environmental justice; to promote economic alternatives which would contribute to the development of environmentally safe livelihoods; and, to secure our political, economic and cultural liberation that has been denied for over 500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples, do affirm and adopt these Principles of Environmental Justice:

1. Environmental justice affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.

2. Environmental justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.

3. Environmental justice mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things.

4. Environmental justice calls for universal protection from nuclear testing, extraction, production and disposal of toxic/hazardous wastes and poisons and nuclear testing that threaten the fundamental right to clean air, land, water, and food.

5. Environmental justice affirms the fundamental right to political, economic, cultural and environmental self-determination of all peoples.

6. Environmental justice demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.

7. Environmental justice demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation.

8. Environmental justice affirms the right of all workers to a safe and healthy work environment, without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.

9. Environmental justice protects the right of victims of environmental injustice to receive full compensation and reparations for damages as well as quality health care.

10. Environmental justice considers governmental acts of environmental injustice a violation of international law, the Universal Declaration On Human Rights, and the United Nations Convention on Genocide.

11. Environmental justice must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.

12. Environmental justice affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all to the full range of resources.

13. Environmental justice calls for the strict enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of color.

14. Environmental justice opposes the destructive operations of multi-national corporations.

15. Environmental justice opposes military occupation, repression and exploitation of lands, peoples and cultures, and other life forms.

16. Environmental justice calls for the education of present and future generations which emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.

17. Environmental justice requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to insure the health of the natural world for present and future generations.

Adopted today, October 27, 1991, in Washington, D.C.

APPENDIX C

Approaches to the Assessment of Community Well-Being

Author(s)/ Date	Approach	Type of Data	Indicators Used	Variables	Description
Christakopoulou et al. (2001)	Community well-being questionnaire	Quantitative; Primary data from questionnaires	Questionnaire explores the local community as: 1. A place to live 2. A social community 3. An economic community 4. A political community 5. A personal space w/ psychological significance 6. A part of the city		The questionnaire explores local people's feelings, behaviour and perceptions regarding elements which are significant for a community's well-being, such as community satisfaction, personal safety, income sufficiency and community spirit. In this way, the questionnaire provides valuable information for those interested in and working to bring about improvements to living conditions within local communities – particularly those who are pursuing holistic solutions and integrated approaches. Specifically, it can be used to inform the design and implementation of intervention policies, programmes and projects in an area
Cooke and McHardy (2004)	Human Development Index (HDI)	Quantitative; Secondary data from Statistics Canada	Health Knowledge Access to material goods	Life expectancy Educational attainment Gross Domestic Product	These three dimensions are identified by the UNDP as necessary for the making of meaningful choices by individuals, which requires reasonable levels of health and longevity, literacy and some level of education, and a minimal level of material well-being. They are combined to form the composite HDI.

City of Calgary (2005)	Social indicators	Quantitative; Secondary data from Statistics Canada	Poverty (economic well-being)	Persons in low-income households	An evaluative approach which attempts to measure differences in social welfare between two groups of people, or between two points in time. Communities are evaluated based on both incidence and risk of the various indicators. Both incidence and risk are expressed as index values.
			Employment (economic well-being)	Unemployed people	
			Family stability (social well-being)	Lone parent families	
			Social inclusion (social well-being)	Seniors living alone, recent immigrants	
			Education (social well-being)	Persons not completing high school	
			Housing (social well-being)	Dwellings requiring major repairs	
			Personal health (physical well-being)	Hospital In-patients	
			Personal Safety (physical well-being)	Emergency room visits, person crimes	
Department For International Development (DFID), UK.	Sustainable livelihoods	Qualitative and Quantitative	Natural Capital	Natural resource stocks and ecological functions (e.g. nutrient cycling, erosion protection) or intangible public goods (e.g. atmosphere) and divisible assets used directly for production (trees, land, etc.)	Developed to help analyze and understand the livelihoods of the poor. It is also used to assess the effectiveness of existing efforts to reduce poverty. The framework views people as operating in a context of vulnerability. Within this context, they have access to certain assets or poverty reducing factors. These gain their meaning and value through the prevailing social, institutional and organisational environment. This environment also influences the livelihood strategies
			Social Capital	Observations of trends - whether the state of social organisations appears to be becoming better or worse for livelihoods	

			Physical Capital	The following components of infrastructure are usually essential for sustainable livelihoods: affordable transport; secure shelter and buildings; adequate water supply and sanitation; clean, affordable energy; and access to information (communication).	– ways of combining and using assets – that are open to people in pursuit of beneficial livelihood outcomes that meet their own livelihood objectives.
			Human Capital	Education attainment; life expectancy; health care quality; skills and knowledge that enable people to pursue different livelihood strategies	
			Financial Capital	Available stocks; regular inflows of money	
Hay (1993)	Well-Being Conceptual Framework	Qualitative; N/A	3 key elements of well-being: Self-determination; Mutual recognition and Interdependence; and Equality	3 contributors of well-being: Security; Citizenship; and Democratization	Well-being is defined as the pursuit and fulfillment of personal aspirations and the development and exercise of human capabilities, within a context of mutual recognition, equality, and interdependence. The framework could be used to identify and evaluate institutional responses to social dilemmas, and to assess the degree to which current social, economic, and political institutions enable or constrain the establishment of the contributors to well-being. This analysis would be especially important for marginalized populations, i.e. Aboriginal peoples.

Kerans and Drover (1993)	Sectoral approach to well-being	Quantitative; Secondary	Defined sectors such as health, education, housing, employment,	Indicators for each sector, e.g.: mortality, number of students completing high school, housing starts, unemployment rates	The authors distinguish between two approaches to defining and measuring well-being. The values approach stresses values and goal statements as being more important to the understanding of well-being rather than objective measures of achievement in various sectors.
	Values approach to well-being	Qualitative	Social opportunity, participation, justice, equality, etc.	N/A	
McHardy, M., and E. O'Sullivan (2004)	The Community Well-Being Index (CWB)	Quantitative; Secondary data from Statistics Canada	Education	Function literacy, High school diploma or higher	The CWB index combines indicators with the underlying philosophy and scaling methodology of the HDI. The CWB identifies: prosperous First Nations communities which could serve as role models and sources of best practices for less developed communities; communities with serious socio-economic difficulties; and the well-being of First Nations communities relative to other Canadian communities.
			Income	Income per capita	
			Labour Force	Participation in labour force; employed labour force participants	
			Housing	Housing quantity, housing quality	
Minnesota Office of Environmental Assistance. (2004)	Sustainable communities	Quantitative and Qualitative; N/A	Community Development	Civic engagement; use of local resources; accessibility; quality of life; public safety; education; community history; community identity; neighbourliness	
			Ecological Health	Carrying capacity; ecosystems; resource use; land use; waste reduction, reuse, and recycling; energy; clean water; clean air	
			Economic Health	Meaningful work; business variety; economic vitality; economic self-reliance; economic feasibility; pricing	

			Social Equity	Who gets the benefits; who pays the costs; fairness to other communities; affordability and access	
			Connections, Trade-offs and the Long Term	The 7 generation test; the big picture; public-private partnerships; trade-offs in the community; improvement over time	
Ramsey and Smit (2002)	Rural community well-being model	Quantitative and Qualitative; Primary data from farm surveys and personal interviews and secondary data from marketing board reports and Statistics Canada	Economic well-being	Individual financial help; health of farm; community services; income levels	Rural community well-being is interpreted as the interrelated structural and functional conditions (physical, psychological, social, economic) of a community, including individuals and their interactions, within a non-urban environment. The conditions are not independent of one another.
			Social well-being	Social life; community life; career satisfaction; quality of life	
			Physical well-being	Disease; mortality rates; life expectancy	
			Psychological well-being	Suicide rates; indicators of life satisfaction; psychological assessment; social life	
The Scottish Development Centre for Mental Health (2003)	Community well-being	Qualitative; Primary data from discussions and interviews with Scottish communities	3 key factors that influence well-being: Positive affirmation of worth; Access to local infrastructure of amenities, services and opportunities; and Safety and security	N/A	This project was commissioned to explore what is meant by 'well-being', both with members of community groups and people working in health and community services and to identify how well-being can be increased. The study found that action to promote well-being must recognise wider structural factors as well as the development of individual coping resources. Relevant agencies must also recognise that their impact on well-being will be affected by the approach they take as well as by the

					success or failure of their longer-term or wider objectives
Stedman et al. (2004)	Resource dependence and (rural) community well-being	Quantitative; Secondary data from Statistics Canada	Economic, social	Family poverty; individual unemployment and educational attainment; median family income; and five-year in-migration rates	The paper presents an overview of the relationship between resource dependence – agriculture, fisheries, mining, energy, forestry – and human well-being in Canada to determine if this relationship varies between resources and regions. The authors found that some industries are consistently associated with positive or negative outcomes: for example, mining and energy are associated w/ high income, while the opposite holds true for fishing communities.
Cuthill (2002)	Community Well-Being Indicators	Quantitative and Qualitative; Primary data from interviews, surveys, and Secondary data on economic, environmental and social factors in Coolangata.	Human capital and Social capital	Residents' perceptions on their life in the city, the relationship between community and government, and community life.	A range of non-indexed, non-monetary indicators of well-being have been explored which assess human or social capital, and those that take a broad systemic approach with indicators for all types of capital. Human capital indicators focus on the individual as the basis for assessing well-being while social capital is described through the quality of social relationships, how people interact, the potential for trust and cooperation and level of cohesion.
			Economic and others (from Census)	Age profiles, household income, living arrangements, employment, educational data, transport options	