

**An Institutional Analysis of Land Use Conflicts in Ontario: The Significance of Risk and Institutional Trust**

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Paper for presentation at the Canadian Political Science Association meeting June 13-15, 2012

**Preliminary Draft – Please Do Not Quote**

## Introduction

Conflict is an inherent part of public policy. No matter how well designed, balanced, equitable, or important, a policy can generate conflict that can lead to policy failure.<sup>1</sup> One reason that is increasingly driving conflicts over policy is resistance to policy decisions by citizens concerned about the risks posed by the proposed policy. Genetically modified food, Nano-technology, immunization, and other policy areas have been significantly affected by the perceived risks of these technologies (Leiss, 2001). One specific policy problem that has become increasingly intractable is the conflict over the placement of facilities that are perceived as posing risks to individuals or communities near them. Traditionally, this resistance was termed as the ‘Not In My Backyard (NIMBY)’ syndrome and was attributed to citizen concerns over declining property values (Dear, 1992). Increasingly, resistance is attributed to the perception that some facilities pose a significant threat to environmental or human health (Schively, 2007). Resistance to these types of facilities stems from two different but parallel developments: the increased perception of risk by many citizens and the decreased level of trust of citizens in traditional institutions and modes of policy making (Fischer, 2000; Kasperson, Golding, & Tuler, 2005; McAvoy, 1998). Many citizens are no longer willing to trust the characterization of the risk assessed by experts, and this problem is likely to become more acute as the public becomes more sensitive to environmental threats.

When actors perceive that a facility poses a risk to their health, the environment, or important aspects of their lifestyles, they may withdraw their consent from the proposed facility. Therefore, the factors that influence the decision to withdraw consent for a facility are crucial in understanding why actors actively oppose these facilities and can help explain why some opposition is more successful than others. Two factors will be proposed as crucial in the following discussion: the nature and scale of the risk perceived to be posed by the facility and the degree of institutional trust that is built and maintained by the institutions involved in decision making.

The perception of the type and scale of risk posed by a facility affects the decision to support a facility because this is the potential cost to an actor of a facility being completed. Institutional trust is proposed here as way of capturing the relative level of trust an individual extends to the institutions that make decisions in these conflicts. If actors believe that a facility poses a risk to their health or welfare and does not trust the institutions that approve the facility, then opposition to that facility is a rational response. This research seeks to answer several questions: Does institutional trust have a positive effect on the decision to support the construction of a given facility? How does the type and scale of risk perceived by actors affect their decision to support a facility? Finally, how do these interact with the institutional structure of each conflict to produce the outcomes we observe? The next sections outline the approach and methodology used to answer these questions followed by a brief review of some of the existing literature about these conflicts. The paper then moves to a fuller discussion of the two concepts proposed as central to understanding these conflicts. Finally the paper presents the preliminary results of two case studies that suggest that the type and scale of risk and institutional trust are important factors in explanations of why actors choose to support or oppose a facility and that these decisions are essential to understanding how these conflicts produce the outcomes we observe.

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<sup>1</sup> This is of course a controversial statement as policy success and failure are notoriously difficult to define. The use of success and failure here is based on McConnell’s (2010) definition: “A policy is successful insofar as it achieves the goals that proponents set out to achieve. However, only those supportive of the original goals are liable to perceive, with satisfaction, an outcome of policy success” (p. 39).

## Theoretical Approach and Methodology

The fundamental basis for the research presented here is institutional. Institutions have been a focus of research in economics (North 1990), organizational sociology (March & Olsen, 1984), environmental studies (Young, 2008), and policy research (Hall, 1992; Ostrom, 1990; Scharpf, 1997; Sproule-Jones, Johns, & Heinmiller, 2008). Varying forms of institutionalism have become prominent in different disciplines and regions, but the focus on institutions as a structure of importance links these forms into a coherent research agenda. Institutionalism has become important enough to policy research that it has been credibly suggested that “policy studies can hardly produce convincing explanations without accounting for the role of institutions” (Montpetit, 2005, p. 226).

There are a number of approaches within institutionalism (Hall & Taylor, 1996; Lecours, 2005; Peters, 1999; Thelen, 1999) but because the focus in this study is on the interactions between actors in local conflicts, this research will draw primarily from the institutional approach advanced by Elinor Ostrom (1990; 2011). In this research tradition, institutions are theorized as sets of rules (formal or informal) that govern human interaction and can assist actors in overcoming collective action problems (Ostrom, 2005). However, institutions can also lead to conflict instead of cooperation and can formalize disparities of power (Ostrom, 2005). Land use conflicts surrounding risk facility proposals occur within a set of institutions that structure the conflict and contribute to the outcomes of these conflicts. An institutional approach to land use conflicts can illuminate how it might be possible to overcome the problem of collective action inherent in many risk facility proposals and change institutions to improve outcomes.

To illustrate the concepts and analytical framework proposed here, the preliminary results of two case studies will be used. Case studies are a method of intensively studying an instance of a class of events in order to reveal variables that are theoretically important and can be a particularly strong method for identifying and developing theories about the nature of causal relationships and mechanisms (Poteete, Janssen, & Ostrom, 2010; George & Bennett, 2005; Yin, 1994). Both cases were examined using the within-case technique of process tracing (Beach & Pederson, 2011; Bennett & Checkel, Forthcoming; George & Bennett, 2005) and compared using a most similar case design. Cases were selected based on variation on both the type and scale of risk and institutional trust. These case studies are part of a dissertation project and while not complete at the time of writing, preliminary findings are used to provide insights into the concepts presented.

The analysis of these case studies was conducted using three data collection methods. The first was extensive documentary evidence including documents from municipal and provincial agencies and committees, the decisions issued by the Ontario Municipal board (OMB) and Environmental Assessment tribunal, and documents and communications from those who supported and opposed the facilities. The second data source was an analysis of newspaper articles about each conflict using content analysis. The  $n$  for Site 41 was 487 and for the wind farm analysis the  $n$  was 302. The articles were coded using qualitative coding software to reveal the discourse surrounding trust, risk, and public participation for each of the cases. The third method was semi-structured interviews with key participants in each case. Most interviews are complete at this time and preliminary analysis has been completed. The expected final  $n$  will be 18 to 20 interviews for each case. The purpose of the interviews is to identify perceptions of risk and trust amongst the decision-makers and stakeholders of each case. The combination of the three methods provides a deep understanding of each case.

## Existing Literature

Before proceeding with the discussion of risk and institutional trust, a brief review of the existing research on facility siting is important. Most of the existing policy research on facility siting focuses on specific policy areas and a significant amount of this research has focused on the siting of hazardous waste facilities with some recent attention to renewable energy facilities. What is missing from these important contributions are the common factors across policy areas that might provide a broader framework for analysis of these types of conflicts. Research has utilized multiple approaches including institutional frameworks (Breukers & Wolsink, 2007; Gerrard, 1994; Rabe, 1994; Wolsink, 2000) and approaches that focus on survey research to reveal public opinion and discourse surrounding these conflicts (Gross, 2007; Hunter & Leyden, 1995; Kuhn, 1998; McAvoy, 1998). This study seeks to contribute to this research by making comparisons across policy areas using mixed methods to capture the rich context of each case.

Much of the research on hazardous waste siting conflicts has focused on the potential inequity inherent in siting these facilities. Inequity can cause conflict because it creates the perception that the host community is disproportionately bearing the risk of dealing with hazardous waste (Gerrard, 1994; Kasperson, 2005; McAvoy, 1998; Puschak & Rocha, 1998; Rabe, 1994). Waste that will be disposed of at the proposed sites will, at the very least, come from throughout the state or province, and most residents fear that waste will be imported from other regions. The community that is chosen to host a site will bear the full environmental and health costs associated with hazardous waste disposal while they may receive none of the economic benefits that were gained in the creation of that waste. Regions that do not contribute to dealing with dangerous waste are in effect free riding on the proposed community's willingness to host a potentially dangerous facility.

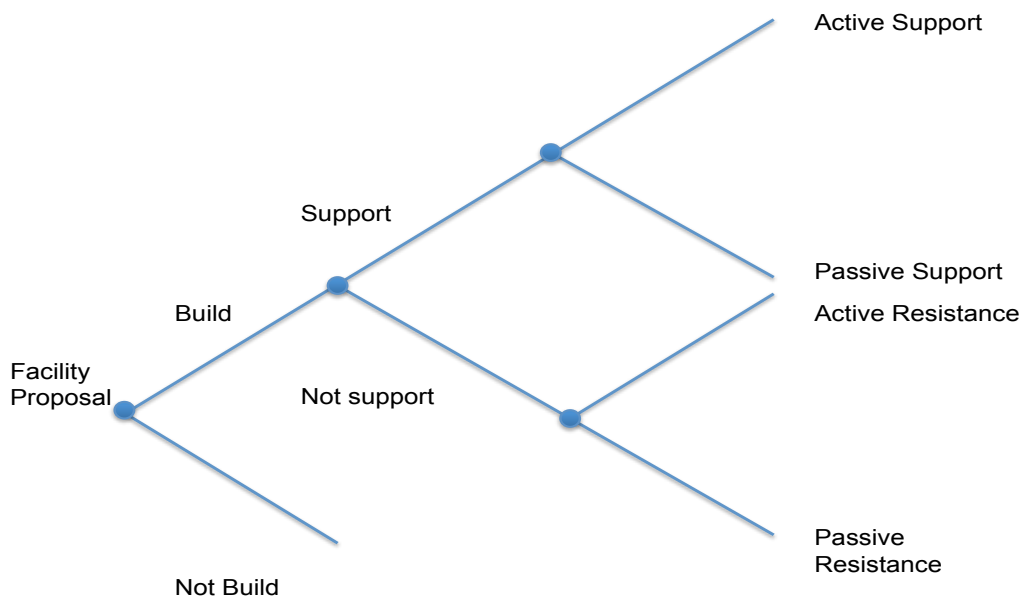
One potential solution to this problem has been a push for more participatory or even voluntary siting processes (Gerrard, 1994; Rabe, 1994). Greater participation in the process of decision-making can lead to greater trust in that process. Communities volunteer to host sites presumably because they wish to capture economic benefits. However many siting conflicts are over facilities that do not offer any substantial economic benefits or that benefit is unevenly distributed through the community. Soliciting communities to volunteer to host controversial sites may be limited to cases involving facilities with the characteristics of hazardous waste treatment, which limits the generalizability of this body of research and necessitates further research on conflicts with different characteristics.

Substantial research is beginning to be available on the siting conflicts around renewable energy projects (Breukers & Wolsink, 2007; Devine-Wright, 2011; Horst, 2007; Wolsink, 2000). Much of this research has focused on the contradiction between the broad public support for renewable energy and the intense resistance that often meets specific facility proposals (Bell, Gray, & Haggett, 2005; Horst, 2007; Wolsink, 2000). Research suggests that there is a distance decay effect on support for these types of facilities: the further away an individual is located from the facility, the less likely they are to oppose that facility (Horst, 2007). This might suggest that opposition to wind turbine facilities is based solely on the so-called NIMBY syndrome. Like the literature on waste siting, more public participation is often suggested as the solution to these conflicts (Devine-Wright, 2011). Public participation in the process of decision making can help overcome hostility to these proposals through deliberative processes.

## Actor Decision Making in Land Use Conflicts

The above studies highlight several crucial elements, especially equity and the role of public participation and trust in the process of decision making. These factors are particularly important when examining the decision to oppose or support a facility. When a facility is proposed, either by the state or by a private actor, those that believe themselves to be potentially affected by the construction of that facility face a choice: accept or oppose the proposal. A simple decision tree (Figure 1) illustrates this choice. Actors decide whether to oppose or support the facility and decide whether to do so actively. The decision to actively support or oppose the facility might include actions such as changing voting preferences, attending meetings, joining groups, signing petitions, and participating in protests.

**Figure 1 Decision Tree Related to Facility Siting/Land Use Decisions**



This decision, if we accept even a bounded version of rational decision-making, is based on a weighing of the cost and benefits. The potential benefit of resisting is the avoidance of the risk that is perceived to accompany the completion of that facility. This risk could take the form of health risks from emissions into the air or water, the risk of a loss of property value, or the risk to lifestyle posed by a loud or noxious facility nearby. These risks are always subjective and there are often significant disagreements between experts and the public over the risks posed by a facility or technology (Fischer, 2000). The cost of resisting a facility is the cost of that resistance. This includes the time and effort to actively oppose a proposal. The perceived risk posed by a facility is crucial to understanding the perceived costs of that facility and therefore decision to support or oppose the facility

If risk is the potential cost of accepting a proposed facility, institutional trust is proposed as having the potential to attenuate that risk. Institutional trust is theorized here as the confidence an

individual has that an institution can and will carry out the mandate of that institution. For example, an actor might trust that a national revenue agency will perform its duties fairly and efficiently. If this is the case, actors may be more likely to accept the decisions of that agency. In the case of a risk conflict, an actor's belief that an institution of decision-making, such as an environmental assessment process, will execute its mandate to protect the environment and the public increases the likelihood that the actor will accept the outcomes of that decision-making process. Both risk and trust are important to the outcome of a land use conflict because they influence which and how many actors will support or oppose the proposed facility. Once the decision to support or oppose a facility is made, actors will then interact with one another through the institutions that structure the decision making process in a conflict and produce the outcomes we observe. It should be noted that the decision process is presented here as a linear one, but the reality would be far more complex. The decision to support or oppose a facility would be constantly revisited by actors as events unfold.

## **Risk**

Risk, like many concepts in the social sciences, is a broad concept deployed by different disciplines, often in very different ways. Most broadly, theorists such as Ulrich Beck (1999) and Anthony Giddens (1991) have developed concepts such as the "risk society" to explain how and why risk is becoming a central component of life and government. More narrowly is the use of risk by risk communication and management theorists to understand how risk is understood by the public and how that understanding affects the public's willingness to accept different risks (Kasperson, 2005; Leiss, 2001; Slovic, 1993). What these approaches have in common is the recognition of the importance of how risk perceptions are formed and how those perceptions then affect decision making.

There is a significant body of research about risk perception. Research suggests that how risk is framed is important to risk assessment (Slovic, Fischhoff, & Lichtenstein, 1984), that social, political, and psychological factors play a role in risk assessments (Slovic, Fischhoff, and Lichtenstein, 1982), and that there is often a disconnect between our emotive response to risk and a more balanced analysis of the same risk (Slovic, Peters, Finucane, & MacGregor, 2005). This body of research is central to understanding how individuals form perception of risks but because of the complexity of this analysis, the focus of this study is not about how an individual forms a perception of risk but how that perception of a risk informs a subsequent decision to act. Risk perception formation is important but is treated as an exogenous variable in this study. While the process of risk perception formation is exogenous, risk perception cannot be treated as static. Individuals involved in these conflicts are typically bombarded by information as the proponents and opponents of a proposal make their cases. Over the course of a facility conflict, which may take years to resolve, the perception of risk can change.

When making a decision to oppose a facility, the type and scale of the risk perceived to be posed by a specific facility is the potential cost of not resisting the completion of that facility. The type of risk perceived is the probability of a given negative event actually occurring and the effect or magnitude of that event (Breakwell, 2007, p. 2). If an actor believes that event is almost certain and that the event will seriously affect them, then the cost of not resisting is high. The technical assessment of risk by experts is generally the multiplication of these two in order to quantitatively assess the relative risk of some technology or activity (Kasperson et al., 2005). Disagreements between experts and members of the public over the type of risk posed by a specific facility are often at the center of the conflict (Fischer, 2000).

The scale of the risk posed is somewhat different in that instead of the evaluation of risk by an actor this is the potential number of actors that will be affected by the type of risk. The larger the scale

of the risk, the more actors potentially affected. This directly relates to the scale of the institutions that will be involved in the conflict and the actors that will perceive they are affected by the proposed facility. If these conflicts are actually about opposing facilities in our backyards, the scale of the risk determines the size of the backyard.

### **Institutional Trust and Consent**

A second proposed element to this decision making is the role of institutional trust. Institutional trust has been identified as important in research about the creation of social capital (Rothstein, 2005), research about the functioning of democracy (Brennan, 1998), and most importantly for this study, research about the importance of institutional trust for developing consent for state policies (Levi, 1997; Levi & Sacks, 2009; Scholz, 1998; Scholz & Lubell, 1998). This body of research identifies institutional trust as a key independent variable in explanations of when and why individuals might consent to state policies that are contrary to their own interest. Higher levels of institutional trust are theorized to increase the likelihood that actors will consent to state policies. Institutional trust, like interpersonal trust, has three elements: *a* trusts *b* to do *x* (Hardin, 2006, p. 19). There is a truster, a trustee, and the object of that trust. I may trust my neighbor to return the shovel she borrowed but not to invest my life savings. Trust is specific to a context. In the case of land use conflicts, trust is placed in specific institutions in relation to a specific role of that institution.

Russell Hardin's explanation of encapsulated trust is probably the most common definition of trust within this literature. Encapsulated trust implies that the trustee must count the truster's interests as his or her own (Hardin, 2006, p.19). This is not done because their interests are perfectly aligned, as might be the case when I assume that an investment broker will invest my money wisely because her own money is in the same investments. Instead, encapsulated trust requires that I count your interest as important to me separately from my own direct interest. Hardin suggests the most common reason for this encapsulation is the maintenance of an important social relationship that may provide value in the long term (2006).<sup>2</sup>

The literature on consent and institutional trust has adapted the encapsulated trust definition of trust. Margaret Levi has constructed a theory of consent based on four models of compliance (1997). The first, called habitual obedience, is simply the idea that many individuals comply out of habit and conformity to social norms. No assessment of institutional trustworthiness occurs. This might account for some members of the public who passively support a proposed facility. However, this is probably an unsatisfying explanation when we observe variation in compliance across different policy areas within the same social context. The second is ideological consent, which suggests that individuals consent when a policy conforms to an ideology. While ideology certainly plays some role in siting conflicts, it is unlikely to explain outcomes. We can see the conflict between ideology and behavior in survey responses that significantly support renewable energy but then observe significant opposition to actual renewable projects (Horst, 2007). Neither of these explanations seems useful for understanding the variation in conflict over risk facilities.

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<sup>2</sup> It should be noted that Hardin rejects the idea that individuals are capable of trusting institutions in the fullest sense of encapsulated trust (1998). Because individuals cannot know all the actors and incentives in complex state institutions, it is impossible to judge the degree of encapsulated trust. Hardin instead suggests that individuals may only have inductively gathered expectations of state behavior (1998). This has proved a contentious position. See Levi (1998) for an answer to this problem and Rothstein (2005) for critique of Hardin's assertion that trust cannot apply to institutions.

Levi's final two models of compliance are more promising as explanations of decision-making in land use conflicts. The third model is the opportunistic obedience model (Levi, 1997). This suggests that actors will comply with a state policy when that compliance benefits them directly. Opposition to a facility can therefore be expected when that facility imposes perceived costs on actors. The degree to which they trust state institutions is irrelevant to this decision-making. Only the perceived costs and benefits are weighed to decide whether to oppose the facility. This is the traditional NIMBY conception of resistance to facility siting: resisters are only opposed because of the costs to themselves and would not actively oppose a facility that posed a risk to others. If this is the case then we can predict the amount of opposition by comparing actors' beliefs in the perceived risk posed by a facility to the cost of actively opposing that facility.

The final model of compliance proposed by Levi, and the one tested in this research, is the contingent compliance model of consent. This model suggests that an actor's compliance with a given policy depends on that actor's assessment of the trustworthiness of the institutions involved in that policy and the belief that other citizens are also complying. Levi (1997) uses this model to explain why some actors will consent to policies that might be contrary to their material benefit. The relevance of this model to facility siting should be clear: if an actor cannot trust the institutions that make decisions about facilities that they perceive as posing a risk, then opposition to that facility is the only rational response. This is distinctly different than the third model of opportunistic consent because it explicitly accepts the idea that the process used to make decisions can have an effect on the acceptance of these decisions. This is at the heart of most literature about participation and deliberative democracy. The faith in participatory or deliberative processes is firmly rooted in the idea that a fair and inclusive process of decision making can increase cooperation (Carpini, Cook, & Jacobs, 2000; Chambers, 2003).

Levi focuses on two characteristics of institutions as central to the creation of trust: fair decision making and ethical reciprocity. Decision-making must be seen as fair based on three criteria: equitable participation in decision-making, relative equity of outcomes, and universal application (Levi, 1997, p. 24). If citizens believe these criteria of fairness are met, they are more likely to consent to policies, even if these policies impose costs. Ethical reciprocity is a second characteristic of contingent consent. Ethical reciprocity is the perception that other citizens are also contributing to common goods or obeying rules (Levi, 1997, p. 24). Institutions can provide rules that enforce this norm and can provide information to other actors about compliance.

The application of the model of contingent consent to facility siting is therefore a test of whether or not the nature of the institutions of decision-making around that facility affect an actor's decision to consent to that facility. If they do not, then the model of opportunistic consent is the most likely alternative. Which model best explains consent or non-consent has a profound effect on the way these conflicts can be resolved. If contingent consent is the basis for the decision to consent to a proposed policy then the fairness of institutions in the process is important as is the perception that other actors are complying. This would mean that institutions that are equitable, inclusive, and universal will contribute to an actor's willingness to consent to facilities that might pose some potential risk. If the opportunistic model is the most applicable, then institutional changes that affect the costs and benefits for actors are the most likely to improve consent to proposed facilities.

### **Risk and Institutional Trust: Evidence from Two Case Studies**

The above discussion of risk and institutional trust proposes that these are important elements of an actor's decision to support or oppose a specific facility proposal. An institutional framework can then be deployed to understand how these incentives for action interact with the institutions of decision-



making resulting in the outcomes we observe. Several hypotheses are tested in the following case studies: 1) that the model of contingent consent will better explain the decision to support or oppose a given facility than the opportunistic model, 2) that the type and scale of risk will affect the amount of opposition to a facility and the opportunities and resources available to that opposition, and 3) that the type and scale of risk and institutional trust contributed to the outcome of each conflict by providing the resources and opportunities available to different actors in their interactions with one another. Testing these hypotheses occurs through identifying the empirical observable implications that we would expect to see if these hypotheses are true. The following outlines the results of these observations in the two case studies.

Both conflicts studied here occurred in Ontario, Canada and are situated in similar rural counties. The first study is a conflict that surrounded a proposed landfill in Simcoe County, Ontario referred to as Site 41. The landfill was proposed in 1985 but was rejected in the Environmental Assessment process. The municipality appealed and the decision was overturned by an Order in Council and construction on the proposal was eventually started; however, fierce resistance, including an occupation of the site by protestors, eventually forced the cancellation of the project by a vote at the Simcoe County council in 2010. The second case is about the construction of a large wind turbine farm in Bruce County, Ontario. The wind farm was eventually completed but only after significant resistance including an appeal to the Ontario Municipal Board. Wind farms continue to be a source of significant conflict in the area. These case studies provide the opportunity to test the proposed concepts and institutional framework in conflicts that focus on different types of risk and different institutions while holding constant many cultural factors that might confound the analysis.

### *Type and Scale of Risk*

Each case studied as part of this research project exhibited the influence of the type and scale of risk on actors' decisions to oppose the facility and the subsequent outcomes of each conflict. In the Site 41 case study, the primary conflict was over the potential threat of leachate from the landfill infiltrating the Alliston aquifer. Interviews and the media analysis overwhelmingly revealed that the central discourse was about the protection of regional water quality. Proponents of the site perceived that the risk to the water was low and that the conflict was primarily a conflict over waste management. Opponents often believed that the probability that contamination of water was high and that the magnitude, because of the importance of clean drinking water, would be significant. The most public parts of the Site 41 conflict followed the Walkerton tragedy and inquiry and many actors and media reports made the link between that tragedy and potential risk to water in Simcoe County. The scale of the conflict therefore changed from a local issue to a regional issue because of the type of risk perceived by many of the actors. Instead of being a local issue in which only those closest to the facility were concerned, the fact that many perceived the facility posed a threat to water quality on a regional level meant that even those far from the actual facility became actively involved in opposition.

The conflict over wind farms was much different in that it was more difficult to suggest that wind turbines pose any health risk or loss of property value to anyone not closely adjacent to an actual turbine. There was significantly more variation in the media reports and actors' perception of the risk posed by wind turbines. In the Site 41 conflict, the discourse was overwhelmingly focused on health risks, but wind turbines did not generate this type of consensus. The risks to health and the environment posed by turbines were debated but fewer actors believed they were a significant risk leading to fewer opposed to the facility. The scale of the risk was also significantly different because risk was only perceived to be posed to those closest to the facility. The further away one is from the actual facility, the less likely one is to oppose its construction. This is supported by survey research that suggests a distance

decay factor in the opposition to wind farms and hazardous waste facilities (Horst, 2007). Wind turbine farms were perceived to be less of a risk and that risk was generally isolated to those closest to the facility. In each case the type and scale of risk contributed to the number and location of actors opposed which contributed to the resources available to those actors.

### *Institutional Trust*

The two cases at the center of this research project provide support for the contingent consent model of actor behavior in facility conflicts. Equitable participation in decision making, the first criterion of fair decision making identified by Levi, was at the center of much of the opposition to Site 41. The initial environmental assessment of the proposed landfill was rejected but was appealed to the Provincial Cabinet who overturned that decision and ordered a new assessment process. This created a perception amongst many actors that the provincial environmental decision-making process excluded meaningful participation of actors other than the proponent. The continued assessment process eventually approved the proposed facility and specified a Citizen Monitoring Committee that was to ensure that the conditions specified in the provincial Certificate of Approval were followed. The minutes of these meetings as well as interviews with participants reveal a deep distrust of the county government and the Ontario Ministry of Environment (MOE) decision-making processes through which the proposal was approved.

The conflict over wind turbines in Brue County also demonstrates the importance of equitable participation in decision making for the creation of institutional trust. The initial windmill proposal was decided within the municipal decision-making process after an appeal through the Ontario Municipal board was rejected. At this point the distrust of institutions seemed to be lower because many viewed the opportunity to participate in the decision making as sufficient. The opportunistic model may have offered a better explanation of opposition to the project at this time. However, after the province passed the Green Energy Act (GEA), the process of decision-making became particularly controversial. The GEA removed the decision-making power for renewable energy projects from municipalities making the province the sole source of approval (Ontario, 2009). This has led to significant hostility and distrust of the province. At this point the contingent model became a better explanation as opposition spread to actors without a direct stake in the conflict. The lack of inclusion in the decision-making process in both cases led to significant distrust of institutions and contributed to the resistance to these facilities that was observed.

Both the conflict over Site 41 and the conflict wind turbines demonstrate the importance of Levi's second criterion of fair decision-making, equitable outcomes, for the creation of institutional trust. In both cases, significant groups of actors saw the outcomes as inequitable. In the Site 41 case, actors who lived close to the proposed facility saw the decision to build the facility as imposing the costs of municipal waste handling on them without other regions, especially urban regions, bearing any of the risks. Many actors further from the proposed site perceived the proposed landfill as an unacceptable risk to the county water supply. These perceptions created a set of actors who did not trust the county and MOE to make decisions that would protect their water leading them to actively oppose the proposal. In the wind turbine case, actors observed that those who signed leases to host turbines benefited materially from the construction but those who lived close to turbines but did not host them bore risks but no reward from the turbines. Unlike Site 41, this distrust was more limited to those close to the proposed facility. The inequity of outcomes observed by many actors contributed to their distrust of the institutions of decision-making in each case. In both cases, the perception of inequitable outcomes in each conflict contributed to the decision by actors to oppose each facility.

Like the last criterion, the final criterion of fair decision making, universality of application, is important for explaining the level of opposition in each case. Universality has been linked to trust in government institutions and generally refers to the belief by actors that state policies are being applied to all equally (Levi, 1997; Rothstein, 2005). In the cases investigated here, the evidence from documents, media reports, and interviews suggests the wide belief that the process of decision making unfairly favored the proponents of the facilities. In the Site 41 case, many actors suggested that the municipality had a much lower burden of proof than those opposed to the facility. This was particularly evident in the reactions to the provincial Cabinet's decision to overturn the environmental assessment and the failure of a private members' bill that would have stopped construction of the facility. Actors in the wind turbine case believed that the provincial support of renewable energy through a feed in tariff program signaled that wind turbine projects would be approved regardless of the risks to local communities. Rules that were perceived to benefit the proponents of these facilities contributed to the distrust of these institutions by many actors in each case.

The second important characteristic of contingent consent outlined by Levi is ethical reciprocity and both cases studied here reveal its importance in explaining the decision to oppose a proposed facility. This is the willingness of actors to consent to policies if they believe that others in the community are also adhering to the rules. This concept has played a significant role in much research on land use conflicts (Gerrard, 1994; Rabe, 1997). In both the Site 41 and wind turbine case, the belief that other actors were unwilling to bear the risks associated with the facilities at issue strongly influenced the decision to oppose them. In the Site 41 case, actors close to the proposed facility often expressed the belief that the facility was imposed by other communities that were unwilling to host the facility themselves. This contributed to their willingness to actively oppose the facility and heightened their distrust of the institutions that allowed this to happen. In the wind turbine case, many actors who lived close to the facilities believed that those supporting the facility only did so because they were directly benefiting from the lease of their land. Additionally, there was the perception that the local community was being asked to bear the risks of turbines in order to reduce greenhouse emissions. The opposition to local turbines in many urban areas such as Toronto led to the belief that those who consumed the majority of the power generated were unwilling to contribute equally.

## **Institutions and Outcomes**

The interaction of rules of each conflict with the perceptions of risk and institutional trust of various actors can begin to explain the outcome of these conflicts. The conflict over Site 41 began as a conflict that only really captured the attention of those located nearest to the proposed facility. These actors became involved in the decision-making process surrounding the site, which led to a sense of deep distrust of the institutions involved in this process. This distrust led to a dedicated opposition to the proposed facility that was able to change the scale of the conflict. Site 41 was a proposal for a relatively small landfill that would accept the waste from only four municipalities within the sixteen municipalities of Simcoe County. Because waste management occurs at the county tier of government, the county council of 32 members (comprised of mayors and deputy mayors of each municipality in the county) should have been able to easily overcome the objections of the two council representatives of the township proposed as the host. If the conflict had remained only about the location of waste and the objections of locals had focused on the nuisance of the facility this would likely have been the outcome. However, interviews and newspaper reports suggest that those opposed to the facility were able to change the discourse from one of waste disposal to one about the protection of a pristine water source that supplied most of the county with water. The type and scale of risk was therefore changed from a

very localized and low risk activity to one that threatened the entire county. The perception of risk, therefore, affected the amount of actors opposed to the facility that provided resources to the opposition and affected the scale of institutions in which the conflict occurred. The strong and persistent opposition pressured county councilors from all townships, not just those close to the proposed facility, to vote the proposal down.

The conflict over the construction of a large wind turbine farm in Bruce County followed a somewhat different script. The type and scale of risk posed by wind turbines is considerably different from that posed by potential large-scale water contamination. While the health effects of wind turbines was part of the discourse observed in media reports, that discourse was more limited and seemed to be much less effective at spreading resistance to the facility beyond those directly affected. Because the nature of wind turbines also led to support for the facility from those benefiting from leases, there was a group of actors who actively supported the proposal. This was unlikely to occur in a conflict over landfills as no group directly benefited from its construction. Because of these factors, opposition was limited to fewer actors that were unable to create the public pressure necessary to overturn the decision at the municipal or county level of decision making. Within the set of institutions in which the conflict occurred, those opposed to the project could not overcome the local nature of that opposition. After the GEA, this became even more pronounced as decision making has moved to the provincial scale. Whether the increased institutional distrust created by the implementation of the GEA will create enough opposition to put significant pressure on provincial actors remains to be seen.

## **Conclusion**

The two cases studied here illustrate that the type and scale of risk perceived by actors in a conflict and the role of institutional trust can contribute to understanding the levels of opposition to a proposed facility. The model of contingent consent is particularly useful as an explanation of why some actors might choose to oppose a facility proposal. Once they are understood, it is possible to map out the structure of rules that comprise a conflict to explain how trust and risk affect the incentives for action and resources available to actors. What is missing from this story is a broader analysis that includes the opinions of the public who did not directly participate in the conflict. Survey research might provide answers about the relationship between institutional trust, perception of risk, and support for a facility in the broader population of the counties at the heart of each conflict. Perceptions of risk and institutional trust have proven to be important concepts for understanding how conflicts over controversial facility proposals are resolved. Ultimately, the goal should be to understand how institutions could be altered to improve the level of trust in those institutions and to match appropriate institutions of decision-making to the type of risk posed by a facility. It is also hoped that this can further the understanding of how these concepts might inform conflicts over public policy more generally. As the public becomes more sensitive to risks, whether to health, the environment, or to quality of life, understanding how trust in institutions might attenuate these concerns will become more important.

## References

- Beach, D., & Pederson, R. (2011). *What is process tracing actually tracing?* Paper presented at the American Political Science Association Meeting, Seattle, WA.
- Beck, U. (1999). *World risk society*. Cambridge: Polity Press.
- Bell, D., Gray, T., & Haggett, C. (2005). The 'social gap' in wind farm siting decisions: Explanations and policy responses. *Environmental Politics* 14(4), 460-477.
- Bennett, A., & Checkel, J. (Forthcoming). Process tracing: From philosophical roots to best practices. In A. Bennett & J. Checkel (Eds.), *Process tracing in the social sciences: From metaphor to analytic tool*. Manuscript submitted for publication.
- Breakwell, G. (2007). *The psychology of risk*. Cambridge: Cambridge University Press.
- Brennan, G. (1998). Democratic trust: A rational choice theory view. In V. Braithwaite & M. Levi (Eds.), *Trust and governance* (pp. 197-217). New York: Russell Sage Foundation.
- Breukers, S., & Wolsink, M. (2007). Wind power implementation in changing institutional landscapes: An international comparison. *Energy Policy* 35, 2737-2750.
- Carpini, M., Cook, F., & Jacobs, L. (2004). Public deliberation, discursive participation, and citizen engagement: A review of the empirical literature. *Annual Review of Political Science* 7, 315-344.
- Chambers, S. (2003). Deliberative democratic theory. *Annual Review of Political Science* 6, 307-326.
- Dear, M. (1992). Understanding and overcoming the NIMBY Syndrome. *Journal of American Planning Association* 58(3), 288-300.
- Devine-Wright, P. (2011). *Renewable energy and the public*. London: Earthscan.
- Fischer, F. (2000). *Citizens, experts, and the environment*. Durham: Duke University Press.
- George, A., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge: MIT Press.
- Gerrard, M. (1994). *Whose backyard, whose risk: Fear and fairness in toxic and nuclear waste siting*. Cambridge: MIT Press.
- Giddens, A. (1991). *The consequences of modernity*. Stanford: Stanford University Press.
- Gross, C. (2007). Community perspectives of wind energy in Australia: The application of a justice and community fairness framework to increase social acceptance. *Energy Policy* 35, 2727-2736.

- Hall, P. (1992). The movement from Keynesianism to monetarism: Institutional analysis and British economic policy in the 1970s. In S. Steinmo, K. Thelen, & F. Longstreth (Eds.), *Structuring politics: Historical institutional in comparative analysis* (pp. 90-113). Cambridge: Cambridge University Press.
- Hall, P. A., & Taylor, R. (1996). Political science and the three institutionalisms. *Political Studies*, 44, 936-957.
- Hardin, R. (1998). Trust in government. In V. Braithwaite & M. Levi (Eds.), *Trust and Governance* (pp. 197-217). New York: Russell Sage Foundation.
- Hardin, R. (2006). *Trust*. Cambridge: Polity Press.
- Horst, D. (2007). NIMBY or not? Exploring the relevance of location and the politics of voiced opinions in renewable energy siting controversies. *Energy Policy*, 2705-2714.
- Hunter, S., & Leyden, K. (1995). Beyond NIMBY: Explaining opposition to hazardous waste facilities. *Policy Studies Journal*, 23 (4), 601-619.
- Kasperson, R. (2005). Siting hazardous facilities: Searching for effective institutions and processes. In J. Kasperson & R. Kasperson (Eds.), *The social contours of risk, Volume 1* (pp. 29-50). London: Earthscan.
- Kasperson, R., Golding, D., & Tuler, S. (2005). Social distrust as a factor in siting hazardous facilities and communicating risks. In J. Kasperson & R. Kasperson (Eds.), *The social contours of risk, Volume 1* (pp. 29-50). London: Earthscan.
- Kuhn, R. (1998). Social and political issues in siting a nuclear-fuel waste disposal facility in Ontario, Canada. *Canadian Geographer* 42 (1), 14-28.
- Lecours, A. (2005). New institutionalism: Issues and questions. In A. Lecours (Ed.), *New institutionalism: Theory and analysis* (pp. 3-26). Toronto: University of Toronto Press.
- Leiss, W. (2001). *In the chamber of risks: Understanding risk controversies*. Montreal: McGill-Queen's University Press.
- Levi, M. (1997). *Consent, dissent, and patriotism*. Cambridge: Cambridge University Press.
- Levi, M. (1998). A state of trust. In V. Braithwaite & M. Levi (Eds.), *Trust and governance* (pp. 197-217). New York: Russell Sage Foundation.
- Levi, M., A. Sacks. (2009). Legitimizing beliefs: Sources and indicators. *Regulation and Governance* 3, 311-333.
- March, J. G., & Olsen, J. P. (1984). The new institutionalism: Organizational factors in political life. *American Political Science Review*, 78(3), 734-749.

- McAvoy, G. (1998). Partisan probing and democratic decision-making: Rethinking the NIMBY syndrome. *Policy Studies Journal*, 26(2), 274-292.
- McConnell, A. (2010). *Understanding policy success: rethinking public policy*. New York: Palgrave MacMillan.
- Montpetit, E. (2005). Westminster parliamentary, policy networks, and the behaviour of political actors. In A. Lecours (Ed.), *New institutionalism: Theory and analysis* (pp. 225-244). Toronto: University of Toronto Press.
- North, D. C. (1990). *Institutions, institutional change and economic performance*. New York: Cambridge University Press.
- Ontario. (2009). *Bill 150 green energy and green economy act 2009*. Toronto: Government of Ontario.
- Ostrom, E. (1990). *Governing the commons*. Cambridge: Cambridge University Press.
- Ostrom, E. (2005). *Understanding institutional diversity*. New Jersey: Princeton University Press.
- Ostrom, E. (2011). Background of the institutional analysis and development framework. *Policy Studies Journal*, 39(1), 7-28.
- Peters, B. G. (1999). *Institutional theory in political science*. London: Continuum.
- Poteete, A., Janssen, M., & Ostrom, E. (2010). *Working together: Collective action, the commons, and multiple methods in practice*. Princeton: Princeton University Press.
- Pushchak, R., & Rocha, C. (1998). Failing to site hazardous waste facilities voluntarily: Implications for the production of sustainable goods. *Journal of Environmental Planning and Management*, 41(1), 25-43.
- Rabe, B. (1994). *Beyond NIMBY: hazardous waste siting in Canada and the United States*. Washington D.C: The Brookings Institution.
- Rothstein, B. (2005). *Social traps and the problem of trust*. Cambridge: Cambridge University Press.
- Scharpf, F. W. (1997). *Games real actors play*. Cambridge: Westview Press.
- Schively, C. (2007). Understanding the NIMBY and LULU phenomena: Reassessing our knowledge base and informing future research. *Journal of Planning Literature* 21(3), 255-266
- Scholz, J. (1998). Trust, taxes, and compliance. In V. Braithwaite & M. Levi (Eds.), *Trust and governance* (pp. 197-217). New York: Russell Sage Foundation.

- Scholz, J., & Lubell. (1998). Trust and taxpaying: Testing the heuristic approach to collective action. *American Journal of Political Science* 42(2), 398-417.
- Slovic, P., Fischhoff, B. & Lichtenstein, S. (1982). Why study risk perception? *Risk Analysis*, 2(2), 83-93.
- Slovic, P., Fischhoff, B. & Lichtenstein, S. (1984). Behavioral decision theory perspectives on risk and safety. *Acta Psychologica*, 56, 183-203.
- Slovic, P. (1993). Perceived risk, trust, and democracy. *Risk Analysis*, 13(6), 675-682.
- Slovic, P., Peters, E., Finucane, M., & MacGregor. R. (2005). Affect, risk, and decision making. *Health Psychology*, 24(4), 35-40.
- Sproule-Jones, M., Johns, C., & Heinmiller, T. (2008). *Canadian water politics: Conflicts and institutions*. Montreal: McGill-Queen's University Press.
- Thelen, K. (1999). Historical institutionalism in comparative politics. *Annual Review of Political Science*, 2, 369-404.
- Wolsink, M. (2000). Wind power and the NIMBY-myth: Institutional capacity and the limited significance of public support. *Renewable Energy* 21, 49-64.
- Yin, R. (1994). *Case study research: Design and methods*. London: Sage Publications.
- Young, O. (2008). Institutions and environmental change: The scientific legacy of a decade of IDGEC research. In O. R. Young, L. A. King, & H. Schroeder (Eds.), *Institutions and environmental change* (pp. 3-46). Cambridge: MIT Press.