

THE UNIVERSITY OF CALGARY

**AGGREGATE AND AGITATION: AN ANALYSIS OF RISK UTILIZING
AN EXAMPLE OF COMMUNITY ORGANIZATION IN WESTERN
ALBERTA**

by

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Abstract

This thesis is concerned with the discourse of risk in modern society. The first chapter consists of a theoretical discussion of several of the anthropological approaches to risk, and a comparison of “risk talk” in complex, industrial societies with “witchcraft talk” in less differentiated societies. The three principal stakeholders are identified and described. There follows an extended case study analysing the events which occurred when an aggregate corporation sought to establish a gravel-extraction quarry in a semi-rural community in Western Alberta. My concern has been to follow the way in which the idiom of risk, once entered into, shapes thought, particularly in discursive sequences. It also appears to be the case (based on this single study) that accusations of exposure to risk cannot be answered just anyhow, but seem to entail a limited range of responses, which (as this case study documents) also have real-world, material, consequences.

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I would thankfully like to dedicated this thesis to the residents of Bearspaw, employees of Burnco, and representatives of the Municipal District of Rocky View No. 44 for their kindness in allowing me to intrude upon them under stressed circumstances. Dr. Doyle Hatt for his advisorship and friendship for the past several years. It is his friendship which I have come to hold most dearly. I would also like to thank Dr. Usher Fleising for admirably guiding me in Dr. Hatt's stead while he was on sabbatical; and Dr. Richard Revel for sitting on my defence committee. Family and Friends require special thanks for being family and friends. Special thanks to Glen Samson for his computer wizardry and Kevin Hammel for his efforts in reading drafts of this thesis and providing prompt and insightful commentary. Finally, it is with great love that I thank Snookums for being a guiding light and my Mother and Father for oh so many things.

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LIST OF SYMBOLS AND ABBREVIATIONS

ABBREVIATION	DESCRIPTION
BASP	Bearspaw Area Structure Plan
CCO	Concerned Citizens Organization
MD	Municipal District of Rocky View No. 44
MD Council	Municipal District of Rocky View No. 44 Council
Rocky View	Municipal District of Rocky View No. 44
Residents	Used interchangeably with the Concerned Citizens Organization

INTRODUCTION

Aggregate and Agitation

The formation of loose particulate into a solid body. **Aggregate:** a. & n. 1. a. collected into one body; collective, total, ... 2. n. ... broken stone etc. used in making concrete; mass of particles in soil etc...; (Geol.) mass of minerals formed into one rock. **Aggregate²:** v.t & i. collect together; unite (individual to company). **Agitation:** n. shaking, moving; (mental or physical) commotion, disturbance; debate, discussion; keeping of a matter constantly before the public.

The Concise Oxford Dictionary, 1982: 18–19

The focus of this thesis is essentially a mundane event which in no drastic way differs from events occurring elsewhere. It is about the organization of residents in a community to oppose the establishment of several gravel pits which they saw as threatening their way of life, their health, and their economic investment. These residents organized themselves under the banner of the Concerned Citizen's Organization. Bearspaw, Alberta, the region within which these residents live, is not a formal community with its own legal organization or structure. Rather, it was their mutual concern over these proposed gravel pits which brought residents together into common action, and for a time at least, made Bearspaw into something of an organized community. The interesting facet of this study was the manner in which arguments were framed and how discourse unfolded between the stakeholders involved. Arguments were encapsulated within the framework of risk. That is, the stakeholders utilized risk as the mode of discourse through which their interests were given expression. It was the purpose of this thesis to learn about the framing of arguments and expression of interests through the idiom of risk.

.....

The duality of aggregation and agitation form a duality in relation to the research described within this thesis. On the one hand this duality reflects the actual case study which forms the core of this thesis. Essentially the aggregation of individuals in a semi-rural community who were agitated (i.e. moved to action) by the proposal on the part of an aggregate corporation to establish a gravel pit within the region where these people live, and who gave voice to fears that the implementation of this pit would jeopardize their economic, social, and physical well being. Secondly, this duality is indicative of the rationale for the formation of any social unit. Individuals aggregate in an attempt to ensure their survival and well-being in a world where the uncertainty of this survival, and one's economic, social, and physical well-being, are tenuous and threatened by 'nature' or by the countervailing interests of others. These statements provide the basis for my analysis or, the utilization of "risk" discourse. As studies have shown, risk is a key idiom and frame of reference for conceptualizing and interpreting the physical and ideational world we experience and live in (Douglas and Wildavsky 1982; Douglas 1982; Douglas 1985; Douglas 1986; Douglas 1992; Leiss and Chociolko 1994; Koshland 1987; Teuber 1990) Risk is also a notion, or conceptual way of viewing the physical and ideational world we experience and live in.

Aggregation and agitation are social phenomena which occur at multiple levels. Global federations, nations, states, economic unions, regional governments, cities, towns, villages, communities (Cohen 1985: 20), interest groups, and families are all examples of entities which are aggregations. The reason why these entities form is usually a result of some form of agitation (social action) in response to perceptions of risk. Military, economic, ideological and ideational, social, cultural, and physical threats or uncertainties are all factors which cause people to aggregate, for various period of time, to manage these perceived risks.

Groups, and individuals, have always organized to forward or protect their interests. Integral to this has been persuading others that their interests are legitimate, and therefore

deserve protection. As a means of achieving this, persuasive arguments must be developed to convince others – particularly those whose role it is to decide such matters. Aside from overt violence, verbal, visual, and written discourse are the primary tools in persons attempts to forward or protect their interests.

Anthropologically we know that, temporally and geographically, people have and do utilize different modes of discourse to conceptualize and express social tensions between individuals and groups. These modes of discourse are intertwined with concepts and notions of the world, concepts and notions which are shared within various levels of communities. Witchcraft, sorcery, godliness, purity, and risk are all examples of this which have received treatment in anthropology (Douglas 1966; Douglas 1970; Evans–Pritchard 1937; Gluckman 1964). Suited to particular times or epochs, they are the matrix through which people view events and the world – and in terms of which people attempt to measure accountability for individuals’ or groups’ actions or intentions. They are ways of talking, but also a means to articulate threats in legitimate ways, and in a form of language which coincides with accepted ideas and notions of causation and morality. To the extent that they are embedded in culture they cannot be dismissed out–of–hand by other members of the society. They delineate what is expected of people. They state what is proper and moral. They flesh out threats which cannot necessarily be seen in ways that make them accessible to every person. On a structural level they can be utilized to mobilize the institutions of a society in a manner which requires those accused of either directly or potentially placing others at harm, to defend their actions.

Evans–Pritchard’s seminal work on witchcraft among the Azande is one classic example of how the notions of witchcraft were utilized in a multi–faceted manner (Evans–Pritchard 1976). His work was one of the first to delve into the *logic* of witchcraft and explain witchcraft in a manner which removed it from the realm of mystical thought to the realm of logic. Furthermore, his analysis noted how when an accusation of witchcraft occurred it set into motion a train of language and action among those involved. The

accusation could also involve those persons who were socially ascribed to cope with these accusations so that open conflict did not occur between the accuser and the accused.

When an analysis of this form is applied to the Western World of the Twentieth century, certain adjustments need to be made in consideration of the social differences between this setting and those which have been primarily undertaken in Africa; and between the considerations of the risk literature and the literature on witchcraft. In the research which took place in Africa accusations almost always occurred between individuals and between persons of either similar social status or towards people of a lower social status. Risk accusations, within the literature, have primarily focused upon accusations among various interest groups. Furthermore, the inherent status of groups seems to assume no role in whether or not accusations are made. The risk initiator, regardless of their economic, social, or political status, can be challenged to defend their intentions or actions.

What is similar between witchcraft and sorcery, godliness and risk is that these notions are all idioms through which social actors are able to give flesh, and to make concrete, ideas and fears which are not material in a manner which makes them intelligible. Essentially they are modes of conceptualizing and defining expectations, values, and interests. As Monica Hunter-Wilson has stated, witchcraft beliefs are “one expression of the values of a society” (Hunter–Wilson 1951: 307); or, we could argue, risk and witchcraft discourse are characteristic ways of expressing values and interests within two distinct types of societies. Accusations on the other hand provide means of actively forwarding or protecting an individual’s or group’s interests. Mary Douglas labels these two forms as expressive and instrumental (Douglas 1966: 3), the instrumental being where beliefs act to reinforce social pressures (Douglas 1966: 3).

Although there has been a certain amount of theoretical conjecture upon why risk has become a dominant mode of discourse within the Western World, and why members of these societies have been utilizing this concept to primarily challenge business activities and

governmental decisions, I will leave this to the interested reader to pursue as it goes beyond the scope of this thesis and involves an interlinking of broad social changes and events which encompass an extensive time frame (see Douglas and Wildavsky 1982: 10–11, 159; Douglas 1992: 22; Wildavsky and Dake 1990: 43; Draper 1993: 641, 642; Cotgrove 1982: v, 50, 74, 117; Crook 1992: 41, 94–99; Kunreuther, Slovic and MacGregor 1996: 110; McGarity 1990: 103–104).

Since we are essentially discussing the protection of values, lifestyle, health, and economic interests, an understanding of the nature of interests will be valuable for comprehending conflicts between stakeholders. People's stated interests are neither monolithic nor necessarily consistent. Furthermore, as Leach argued long ago, values and concepts are manipulated and redefined by individuals over time to meet their interests (Leach 1964). An individual, or group's interests, depend upon the situation or circumstances within which they find themselves and may change as circumstances change. An analogue of this, within the risk literature, has been argued by Paul Slovic and Baruch Fischhoff with respect to nuclear power (in Dowie 1980: 127).

These inconsistencies between stated and pursued interests can be understood if we examine the situations in which people's "agitation" occur. Mary Douglas has argued that unlike primitive cultures where "the rule of patterning works with greater force and more total comprehensiveness" in "moderns it applies to disjointed, separate areas of existence" (Douglas 1966: 40). Although Douglas does not explicitly state in Purity and Danger the rationale for this statement, it appears to be premised upon the observation that modern society is segmented and highly heterogeneous. Family life, community, social relations, economics, work, philosophy, and individual interests are not as mutually reinforcing, as they are (or as they have been portrayed) in 'primitive' societies. Jeremy Boissevain utilizes the image of a Japanese fan to contrast simplex and multiplex societies. In less complex societies the blades of the fan, which represent various fields of activity are "almost closed, the blades resting one upon the other. But in other societies, often

characterized as large-scale, complex, industrialized, the fan is fully extended; the blades of the fan do not overlap” (Boissevain 1974: 30). This perhaps exaggerates the level of cohesiveness and separation in traditional and modern societies but captures the concept. In modern society people, tend to, function within a variety of distinct social settings. In each of these social settings they may harbour notions and practices which would not inherently be accepted in the other. Stephen Cotgrove states this nicely

Goals which individuals seek to maximize for society may not correspond precisely to the hierarchy of values which operates in their personal lives. Perhaps environmentalists in market occupations are private materialists and public post-materialist ... we are suggesting here is that values are relevant to situations. We would not expect the most ardent materialist and supporter of economic individualism to allow such values and ideals to dominate family relationships and more intimate personal relations and loyalties. So when individuals are presented with a list of social goals, there is no necessary inconsistency if they emphasize goals for society which differ from those appropriate for areas of their personal lives. It is quite consistent to act according to material values in an occupation ... and at the same time to give low priority to economic growth as a goal for society (Cotgrove 1982: 39)

When an interest in one sector of society intrudes into another in a manner which creates enough impetus for opposition we see the utilization of society’s institutions and notions of thought as means of furthering this opposition. Conversely, the intruding interest will also actively seek to demonstrate that their wishes and actions are justifiable and in accordance with society’s notions of properness. These interests collide in the public realm where the conflicting interests become matters of public, political and jural interest. Often, and most particularly in societies which have a highly developed political and bureaucratic system, the political and jural polity is automatically involved in these conflicts because of their regulatory and decision making role (Leiss and Chociolko 1994: 259–260). Given the nature of representative government the decision-making process

often tends to be adversarial, not only between the vested interests who are petitioning the composite members; but also between opposing interests within the vested political body who may have aligned themselves to varying degrees with one of the vested interests. Even though each party typically will view the risks differently as either being manageable, necessary because of other considerations, of little concern because of the small statistical likelihood of harm occurring, or that the other misunderstands the risks which are involved there is a commonalty to the discourse between the stakeholders regardless of the exact nature of any particular issue. It is essentially the same where there are strong beliefs in witchcraft, sin, or concepts of purity. In witchcraft discourse one does not deny that there is witchcraft.

Broadly speaking the primary stakeholders involved in debates centered around risk tend to be (1) corporations, (2) the public, and (3) government. The public comprises individuals, local intervener groups, and public interest groups who act as advocates for the broader public. Corporations encompass the broad range of economic interests whom we can label businesses. Finally, government at various levels, including the legal system, forms the third major stakeholder involved in disputes between the private and public sector because of its regulatory role. Leiss and Chociolko argue, though, that government “has always been an active partner in economic development” (Leiss and Chociolko 1994: 39) in both the United States and Canada and can be seen as sharing the value system and perspective of the business sector (this most likely does not hold true for the legal system as those who uphold it are given protection from interference to make independent decisions). Government is also an integral part of “industrialism through the legal and regulatory framework it establishes for the conduct of business” (Ibid.). It should be noted, though, that these political and jural institutions maintain interests of their own, and/or have divergent interests within them which will be brought to the fore when that institution is called upon to decide issues.

Broad generalizations have been made regarding the worldviews that each of these stakeholders will generally hold. A specific attempt has been made by Mary Douglas to understand the factors which 'dictate' a group's worldviews, and has been used in Douglas's analysis of those stakeholders involved in risk discourse. One example of this, Douglas's Grid/Group typologizing system, will not be incorporated in this paper, partly because of the difficulties involved in operationalizing her vectors of "boundedness" and "hierarchy" (or Group and Grid) (Douglas defines these as meaning "the outside boundary that people have erected between themselves and the outside world" and "all the other social distinctions and delegations of authority that they use to limit how people behave to one another") (Douglas and Wildavsky 1982: 138) and in relation other theoretical and practical concerns related to her model. The earlier discussion of interpenetrating values being one of the concerns cited as a critique of Douglas's model (see Rayner 1989: 8 and Draper 1993: 641-643)]. For an overview of Douglas's work on Grid/Group and Risk, and some criticisms of her work see Douglas 1970, 1978, 1982, 1982b, 1986, 1989, 1992; Abel 1985; Boon 1983; Descombes 1991; Elliott 1983; Gross and Rayner 1985; Hazard 1990; Holdren 1983; Kaprow 1985; MacLean 1983; Rayner 1989; Valverde 1991; Winner 1982; Sapolsky 1990; Slovic and Fischhoff in Dowie and Lefrere (eds.) 1980; Spickard 1989, 1990; and Teuber 1990. Although I have elected not to use Mary Douglas's Grid/Group model, her basic depiction of the various stakeholders standpoints can be utilized if many of the above considerations are kept in mind. Benjamin Davy has outlined these with respect to stakeholder's sense of justice. He states

From a highly generalizing point of view, stakeholders expect justice to be done as follows: Developers assume a standard of libertarian justice and expect as little restraint as possible to pursue developments competitively. Regulators assume a standard of utilitarian justice and try to keep the broader picture of environmental protection and hazardous waste management in mind. Opponents, who regard themselves as victims of a powerful industrial-regulatory complex, assume a standard of social justice

and expect protection from being exploited for the developer's profit or the public interest (Davy 1996: 106)

Risk, in both of the two senses to be discussed, is important to understand because the utilization of this notion can be seen as means of stating or defining the interests of those who utilize it. Risk discourse defines tensions within society (Nelkin 1989: 96), and is the form of discourse which seems to be emergent as the primary medium of adversarial communication. Before proceeding, though, I would like to distinguish two separate definitions of risk.

On the one hand, risk can be defined as a mathematical calculation which seeks to determine the probability of an event occurring. Particularly in respect to events which are seen as undesirable or harmful to humans or the environment (if the reader so wishes to obtain a fuller understanding of how these determinations are arrived at, and the difficulty of producing accurate risk probabilities in complex systems one can read Wheelwright 1995: 56–65; or also see Freudenberg 1985) (Freudenberg notes that risk assessments cannot incorporate, or have difficulty with incorporating “human and social factors” which “play vital roles in technological systems”. Furthermore, he notes that developing risk assessments or estimations of “events that are truly rare, or technologies that are still new or untried” do not provide the necessary information to make accurate assessments) (Freudenberg 1985: 48 and 47 respectively). These determinations are important because they can help form the basis from which people are able to strongly argue that they are, or shall be, placed at risk (Douglas 1992: 14, 23). From this they seek accountability for the actions or intentions of others.

The second definition of risk is social; and has already been discussed extensively. Minimally, we may also define risk as being a notion of causation which imputes morality and responsibility. It can therefore be a mode of discourse which accuses, and seeks mitigation and redress from those who are responsible for not only producing the risk, but

also from those whose stated function it is to intervene when such accusations occur. The correlate of this is that the accused must respond if they wish to protect their interests.

Evans-Pritchard commented that the discussion and actions surrounding witchcraft, among the Azande of the Southern Sudan were daily occurrences which the anthropologist had “only to watch and listen” (Evans-Pritchard 1937: 21) in-order to obtain information on and witness. Evans-Pritchard went on to say

Witchcraft is ubiquitous. It plays its part in every activity of Zande life; in agricultural, fishing, and hunting pursuits; in domestic life of homesteads as well as in communal life of district and court; it is an important theme of mental life in which it forms the background of a vast panorama of oracles and magic; its influence is plainly stamped on law and morals, etiquette and religion; it is prominent in technology and language; there is no niche or corner of Zande culture into which it does not twist itself (Evans-Pritchard 1937: 63)

Although risk may not be as ingrained in all aspects of North American society as Evans-Pritchard indicates witchcraft is in Zande culture, it does share the similar property in relation to being ubiquitous (Bem 1980: 2; Douglas and Wildavsky 1982: 184; Fischhoff 1981: XI) . This is an important aspect of risk, for like witchcraft, it can also be found in all activities, to be created through people’s behaviours, actions, or intentions. Because risk is a way of thinking (Douglas 1992: 46), it can be applied to all areas of life. Although witchcraft accusations occurred after misfortune had befallen, and risk accusations can occur before misfortune occurs or after, the linkage between these two phenomena seems to be in the fact that in both societies, Zande and North American, when misfortune occurs or is feared a causal root is sought. This was Douglas’s main point in linking the two. It does not matter whether scientific determinations of risk are a more accurate and ‘truthful’ determinate of causation for disease, environmental degradation, etc. than witchcraft (see Elliot 1983: 894; Kaprow 1985: 344-345 for critiques of relating scientific determinations

of risk to witchcraft). In both societies people seek redress or intervention from those who are socially responsible/ascribed for ensuring people's well-being and accuse those whose actions, behaviour and intentions are seen to place people at risk.

Essentially, Evans-Pritchard stated that an accusation of witchcraft against another person expressed "moral judgment" (Evans-Pritchard 1937: 107) about that person's behaviour. Therefore, Evans-Pritchard felt that one could translate "It is witchcraft" as simply meaning "It is bad" (Evans-Pritchard 1937: 107). The same can be applied to risk. Evans-Pritchard noted that among the Azande all misfortune was seen as "due to witchcraft, and all allow the person who has suffered loss to retaliate along prescribed channels in every situation because the loss is attributed to a person" (Evans-Pritchard 1938: 113). He contrasted this to European society, at that time, when he stated

In our society only certain misfortunes are believed to be due to the wickedness of other people, and it is only in these limited situations of misfortune that we can retaliate through prescribed channels upon the authors of them. Disease or failure in economic pursuits are not thought by us to be injuries inflicted on us by other people (Evans-Pritchard 1938: 113)

Although disease and failure in economic pursuits may not have been attributable to other's wickedness during the time in which Evans-Pritchard wrote it has been conjectured that essentially risk, like Azande notions of witchcraft, attributes blame for disease, economic failure, social disruption, etc. upon others actions, intentions, or failure to intervene in matters where persons economic, social, and physical well-being are threatened or have been harmed (see Douglas 1992: 24–25, 28; Douglas and Wildavsky 1982: 10–11, 32, 33). It is argued that debates between stakeholders about risks – and particularly in regards to what Greenberg (Greenberg 1995: 241) and Davy (Davy 1996: 101) call LULUs, or Locally Unwanted Land Uses – may be as much about the inherent risks as about fairness, the trustworthiness of government and business in protecting

people from harm, and about the manner in which these institutions deal with those persons who have expressed concerns or shall be impacted.

Factors which affect person's acceptance of risks are numerous. They can be succinctly summarized, as has been done by the United States Public Health Service, by noting factors which foster acceptability in contrast to those which reduce acceptability.

Risks perceived to ... are more accepted than risks perceived to ...

Be voluntary	Be imposed
Be under an individual's control	Be controlled by others
Have clear benefits	Have little or no benefit
Be fairly distributed	Be unfairly distributed
Be natural	Be manmade
Be statistical	Be catastrophic
Be generated by a trusted source	Be generated by an untrusted source
Be familiar	Be exotic
Affect adults	Affect children
Public Health Service 1995: 4–5)	

All of the above factors are important and reflect issues of propriety, moral indignation, or conceptions about the natural order. Specifically focusing upon the nature of trust, James F. Jr. Short noted that sociologist Bernard Barber defined trust in 'terms of "expectations that social actors have of one another in social relationships and social systems". Barber went on to delineate "three kinds of expectations that involve the most fundamental meanings of trust: 1) expectations of technical competence, 2) expectation that fiduciary obligation will be discharged properly; and 3) that expectation that the "natural and moral social orders" will be preserved" (Short 1994: 328). Trust, or a lack of trust, between stakeholders is one of the most recurrent themes within the risk literature (see Douglas 1985, Nelkin 1989, Wildavsky and Dake 1990, Aharoni 1981, Slovic 1991, McGarity 1990, and Kunreuther 1996) and is part of a broader theme of risk communication.

Risk communication seeks to understand the social and technical factors which are implicit in the communication process among various stakeholders. The discussions of risk communication and risk in general quite often tend to focus upon the above noted subsidiary factors to the 'initial' impetus which sparked the interaction between stakeholders. One of the reasons for this is the degree to which these factors become primary as the focal of contention between the stakeholders. It has also been argued that it is these tensions which precipitate discussions of risk. As Dorothy Nelkin has argued "definitions of risk are an expression of the social tensions inherent in given social and cultural contexts" (Nelkin 1989: 96). For the purposes of this thesis, and because of the inherent difficulty of entering into circular arguments or causal systems, this question will not be dealt with to a great extent. It is an important factor to keep in mind particularly in relation to the overall discussion which has related risk to witchcraft and witchcraft and risk to modes-of-discourse which are forms of moral or prescriptive discourse. This has been coupled with an argument that where there are divergent interests perceptions of risk will differ and will be reflected in the statements made by each stakeholder involved in the activities created by one groups challenge to the others vested interest. The intent of this coupling has been to describe as accurately, although parsimoniously, as possible both the social dynamics of individual and group interests and the postulated 'role' of a particular form of discourse within a social setting.

Within the literature there seems to be a paucity of case studies to support some of the broader theoretical issues which have been discussed (the only study which has sought to operationalize Douglas's Grid/Group typology for example did so on a strictly hypothetical basis and can therefore not even be seen as being a fruitful contribution) (see Gross and Rayner 1985). Risk, in relation to witchcraft, has not been examined by other scholars except in the format of critiques of Douglas's contentions that the two could be seen as homologous (see earlier for a notation of this). The purpose of this thesis will therefore be to lay out in detail a case study in which risks were the focus of discussion and

interaction between multiple stakeholders. From this point some cursory conclusions may be drawn by linking the considerations made with the descriptive material to follow. There is a certain expectation that each of the stakeholder's stances upon the issues will co-incide with their interests. Furthermore, if risk has become a mode of discourse through which divergent interests communicate with each other and give expression to their interests then we should expect to see an acceptance that these risks are 'real' by each of the stakeholders. This would produce a situation whereby acceptance of the risks exist between each of the stakeholders while at the same time differing in opinion upon whether these risks are manageable, are worth consideration, or upon whether the perceived impact of an activity will produce the effects feared. Each side will be interpreting (skewing) the risks in accordance with their interests. Finally, if risk discourse is social and imputes morality and responsibility then we should expect to find statements which allude to these characteristics.

CHAPTER ONE

Collecting Information and the Interview Process

Research was carried out from May of 1995 to March 1997; with the most extensive work being done during the months of May to October 1995. This intensive period coincided with the most active period of activity by the residents of Bearspaw in their opposition efforts. Research began as I read local newspapers in order to obtain an overview of the conflict.. Time was then spent driving throughout the research area taking a photographic record of protest signs, the community, and becoming familiar with the area. Both local papers and these protest signs publicized upcoming meetings, and the times, and the places where these were to occur, and so I began to attend meetings. After the first meeting I attended I was able to join a local resident as he sought signatures for a petition. This had the dual benefit of broadening my geographical awareness of the area and allowing me access to a broad base of verbal commentary by those whose houses were petitioned. Further meetings were held to organize the petitioning process and these meetings afforded an opportunity to meet local residents and to listen to their concerns without prompting, as well as to meet residents on a informal basis before engaging them to do a formal interview. Residents were made aware of who I was and my research interests at this time.

Interviews with residents typically lasted from one hour to a maximum of three hours. Interviews were taped, unless residents or other stakeholders wished them not to be, and then transcribed. Analysis of these conversations allowed me to gain a sense of why various individuals were opposed to the aggregate operation. Furthermore, it revealed what form of language and arguments they were utilizing.

The interviewing technique was based on unstructured or semi-structured interviews. A template was utilized from which topic-sets were covered with each informant. A pre-developed set of questions was modified soon after research began to remove questions

which I determined were not providing useful information, and to incorporate questions which would garner information on items which either I was not aware of while developing the initial set, or which became important as events unfolded. Typically, a broad question would be asked and residents allowed to respond without interruption for as long as possible, and indeed to take the discussion in whatever direction they wished. The method of letting them talk and having questions answered without being directly asked generated answers to other sought-after questions with a minimum of direction from me. Only if certain points were not brought out during the undirected portion of the interview would I then ask direct questions upon which I was seeking information. This was done to obtain a similar set of information from each informant for comparison purposes. In total, thirteen people were interviewed directly. One other person, who was one of the main participants in the Concerned Citizens Organization, was not interviewed although I had regular contact with him. Six of these thirteen were central members of the CCO. The other seven were persons who contributed time, and/or other resources to the opposition efforts.

Data were also obtained in several other ways. Besides the larger meetings which were held at the local community centre, I also attended smaller and more focused meetings held by the central members of the CCO. At these meetings I did not take notes, record or interrupt, but instead wrote up summaries afterwards which described what occurred and paraphrased quotes which seemed significant. Attendance at these meetings was primarily intended to shed light on how they organized and to see how they sought to shape the issues and perceptions of risk. I also attended sign-painting sessions with residents while they were organizing for the plebiscite. Attendance at these gatherings allowed me to assess the time and monetary commitment given to such activities. I also collected texts of speeches which Concerned Citizen members had given at Rocky View Council hearings regarding the proposed aggregate operation.

In addition to my dealing with opponents of the development, interviews were also arranged with the two other principal stakeholders involved in the dispute. These were

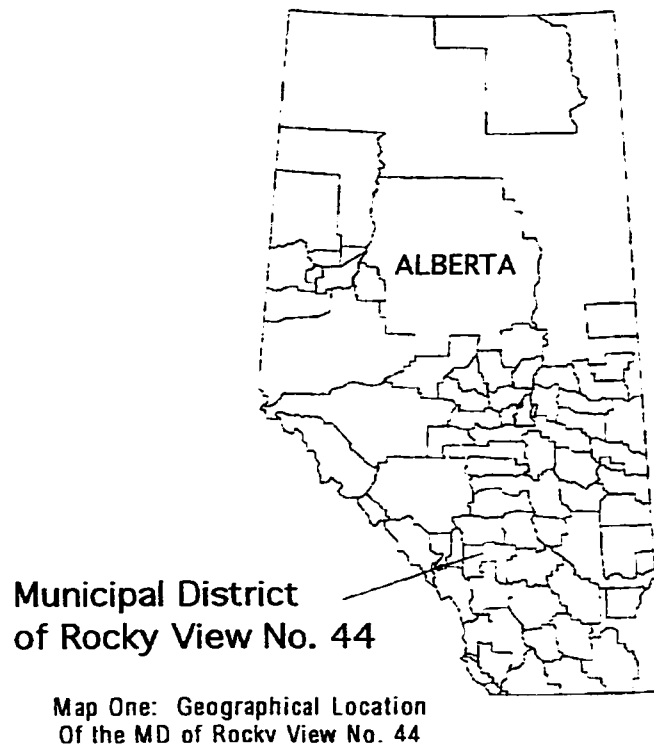
Burnco and Officials of the MD of Rocky View. Three Councillors were interviewed and I attended a three Council meetings. As well, I met with three managers of Burnco on several occasions, including tours of several aggregate operations and reclaimed pit operations which had been developed into parks and communities, as well as other sites and locations which they felt were pertinent. Time was also spent time with two gravel truck drivers while they worked. I was not able to take notes or record our conversations during these because of the noise level within the vehicle cabs and motion of the trucks. An interview was done with one of these drivers at a latter date, but the information obtained from this interview, plus that obtained while traveling with these drivers, was not utilized as the information collected did not fit within the framework being utilized in this thesis. These excursions did provide a useful insight into a integral component of the gravel industry. Throughout, I continued to keep a photographic record of the aggregate extraction operation as it develops, with the assistance of the on-site manager. This also afforded me the opportunity to have further contact with Burnco employees and their commentary. The aggregate company also supplied me with various literature on the proposed site, and a video tape detailing the proposed project. Interviews with members of the aggregate company did not follow the format which I used with residents of the community or government officials. Rather I let them explain their position on the issue and only brought up specific concerns which residents had expressed on safety issues and how they thought the Municipal District of Rocky View had handled the debate to this point. Interaction with representatives of the Municipal District of Rocky View No. 44 and employees of Burnco were undertaken to obtain a multi-dimensional perspective. This multi-dimensional perspective, derived from listening carefully to each informant and eventually sifting through what each informant and stakeholder stated, provides the basis for understanding differences in each stakeholder's perception of the risks which were the focus of contention; and for the generalizations I draw at the end.

Finally, I attended the court proceedings related to Burnco's challenge to the Municipal District's decision to hold a plebiscite regarding their approval to re-designate Burnco's property for aggregate extraction. It was important to attend the court proceedings to gauge the impact of the judicial process upon the conflict between the various stakeholders and to determine the wider implications of having another government body intercede in this dispute. The court hearings also gave me the opportunity to have further contact with residents and employees of Burnco and to witness direct interactions between residents and employees of the aggregate company. This was one of the few times where I observed direct dialogue occurring between these two stakeholders.

CHAPTER TWO

Bearspaw: An Overview

The community of Bearspaw rests on the Western edge of Calgary in the southwestern area of the Province of Alberta in western Canada. The community encompasses an expanse of rolling prairie grassland, dotted with coulees, small copses or stands of poplar, sloughs and ponds, with the towering Rocky Mountains to the South and West.



Map No. 1 Geographical Location of the Municipal District of Rocky View No. 44 within the Province of Alberta. (Read 1984: i) (Modified from the Original)

Bearspaw experiences four distinct seasons although, owing to the altitude at which it lies, even summer nights can be cool and frost can occur at any time of the year. This holds true for the whole southwestern area of Alberta. For although it is part of the prairie belt, where historically the buffalo made their great migrations and roamed the area by the

millions, the region is elevated as it rests on the feet of the mountains to the west. The area receives a high proportion of sunlight due to inversions created by the mountains. This is not to argue that it is warm. Summer temperatures rarely exceed 22 to 25 degrees Celsius and winter can bring temperatures ranging from minus 10 below to minus 40 degrees Celsius.

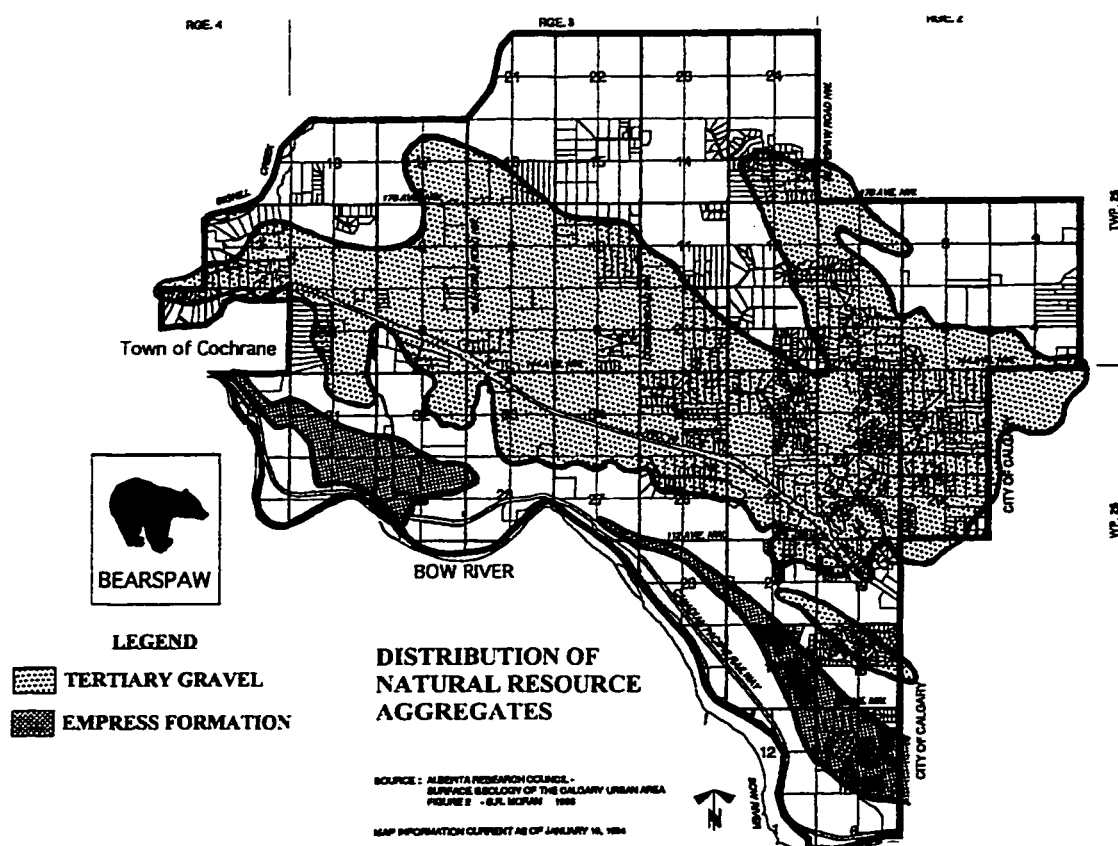
Winds are another common factor in this region. The openness of the area allows wind to blow relatively uninhibited across the terrain making the stalks of grass whisper and rustle and the trees bend and sway as their trunks creak and moan if the wind is strong. During winter the strong winds which blow off the mountains and down from the north reduce the temperature even further. This wind chill factor strips skin of its warmth and for both humans, livestock or wild animals in the region it has proved deadly. Where the air temperature was minus 20 the winds can decrease that to minus 30 or more with the wind chill factor.

By contrast, the Chinook winds are created by warm pacific air blowing from the west and descending onto the prairies once they have broken over the mountains. These strong gusting winds can be seen often before they are felt; as a band of clouds, called a Chinook arch, stretches across the sky in a band with blue rimmed behind it. The winds are often a boon in winter as the warm air they bring clears the land of snow allowing livestock and wild animals to feed upon the prairie grasses. Also, temperatures can climb well above zero where only hours or minutes earlier they were well below zero. Temperature changes of 20 to 30 degrees are not uncommon although variances would not typically be so drastic.

The winds strength in this region also has another noteworthy effect. The nature of the prairie grasslands is that they are exposed and that the soil is relatively dry due to low average annual precipitation. The combination of these two factors allows the strong westerly winds to pick up significant amounts of soil and sediment and blow it across the landscape. Dust storms ravaged the region in the early years of agricultural production,

before advanced practices of land maintenance were developed to preserve top soil. Soil erosion and airborne particulates still remain a factor in the lives of people in the region as it continues to effect agricultural and animal husbandry, as well as the negative effects upon peoples health.

Geologically, the area of Bearspaw lies in part of a large geological formation called the Big Hill – Cochrane Upland. This formation stretches from within the City of Calgary to the City of Cochrane some twenty kilometers west. Gravel deposits within this formation date to the tertiary age and were deposited by rivers traveling downwards from the Rocky Mountains. These deposits are now covered by approximately 10 to 15 metres of overburden consisting of soils deposited during the Pleistocene era.



Map Two: Distribution of Natural Resource Aggregates within the Bearspaw Region (Municipal District of Rocky View No. 44 1994: 18) (Modified from the Original)

Bearspaw is named after a nineteenth century chief of the Blackfoot Confederacy who helped establish peace between the local authorities and his people; he also helped negotiate land treaties with the Government of Canada in the 1870s. For over a century the name Bearspaw has denominated several more or less distinct localities, all to the west of Calgary. On some old maps “Bearspaw” appears South of the Bow River, in the area now known as Springbank. This corresponded with a CP Railway Station called Bearspaw which was also located South of the river and west of Bowness. However, since about the 1920s, the name Bearspaw has generally been used to designate the area immediately west of the City of Calgary and North of the Bow River. Its principal symbol of existence is the Bearspaw–Glendale Community center, located just west of the Calgary city limit.

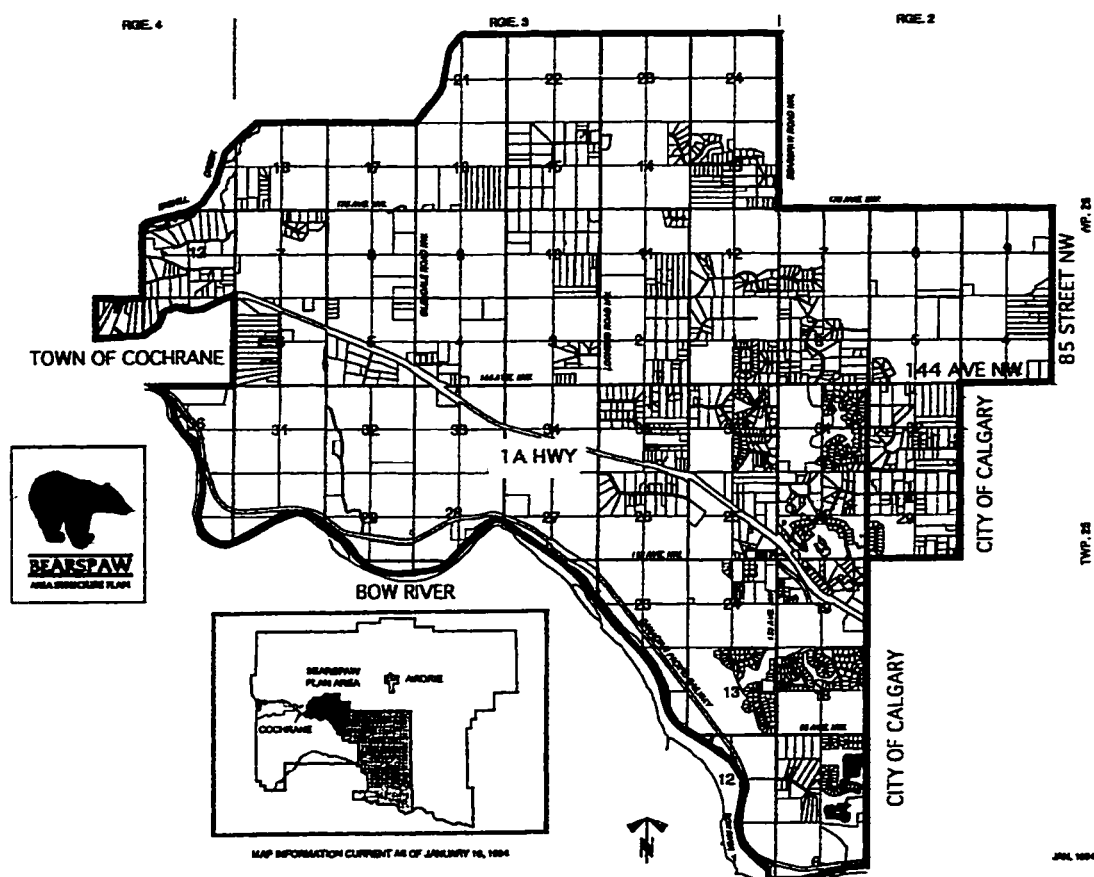
Southern Alberta was sparsely populated by Europeans until the mid to late 1800s. Before 1880 there were only missions, police and trading posts. Following the massive settlement of the Western USA following its Civil War, the Canadian government decided that they needed to assert their sovereignty over the west, in part to protect it in light of talk of American “manifest destiny”. A series of policies were instituted to begin settling large numbers of people in the region. By the early 1870s ranching and farming were beginning to be established in the region and rail lines extended into the region of the present day Municipal District of Rocky View by 1882. Ranching was the predominant economic activity with beef being exported to British Columbia and back to England. In 1894 there were approximately 150 ranches in the Calgary area while strictly farming endeavors made for only one-fifth of this total. The earliest ranchers tended to be younger sons of the British squirearchy, but over time immigrants from other areas of Europe began to settle in the region. The vast tracts of land which had originally been granted to ranching were reduced to allow for more intensive forms of farming, including, notably, wheat cultivation. Nevertheless the region as a whole has retained the basic character of a ranching culture, even if the predominance of ranching in the region has been reduced somewhat from its heyday.

The town, and later city, of Calgary quickly became the center for the region. Located at the confluence of the Bow and Elbow rivers, it was the locus of social, political, and economic activity. With the discovery of oil in the Province in May of 1914 economic activity accelerated and by the 1960s the petroleum industry was the predominant economic activity encompassing approximately forty percent of the economy by 1971 (Friesen 1984: 428). With this transition from a ranching and rural economic base to a petroleum-based economy came a shift from rural to urban living. In 1941 over 60 percent of the population was rural. By 1981 the rural population declined to 22.8 percent, although ranching, grain production, and forestry remain important economic activities for the region (Friesen 1984: 427–429). The Alberta government, after it became a legal entity in 1905, continued the practice of supporting private business after the end of the era of Federal support, which lasted until the mid to late 1800s for ranching, rail, and other industries. Government support and intervention still continue to be a integral part of the economic fabric within Alberta (Friesen 1984: 439).

The historical basis of the ranching culture in the region is reflected in the continuing importance of the various stampedes, or rodeos, throughout the region. The most famous rodeo, the Calgary Stampede, continues to be the cultural and festive focal point of the year for the region; it draws people from around the world for ten days of rodeo competition and cultural events. Dress attire also reflects this importance. Although the city is a cosmopolitan centre of approximately 800,000 people the continuing popularity of cowboy boots and hats, the usage of pickup trucks, and country music all revolve around a socially constructed regional image harkening back to the short-lived ranching era.

Bearspaw, lying outside the incorporated limits of Calgary, has only recently begun to undergo a transformation to a more dense pattern of settlement. Located in the Municipal District of Rocky View No. 44, which surrounds the City of Calgary in a horseshoe pattern to the west, north and east, it lies on the northwestern boundary of Calgary and stretches

westward towards the City of Cochrane, some 22 kilometers west of Calgary, in a band roughly 5 to 7 kilometers wide.



Map Three: Region of Bearspaw and its' Location within the Municipal District of Rocky View No. 44 (Municipal District of Rocky View No. 44 1994: 15) (The following Map has been modified from the original).

Rocky View is thus primarily a rural area surrounding an urban metropolitan center, and this contrast between the rural and the urban inflects much of the character of the MD of Rocky View. This is particularly so in Bearspaw, which is immediately adjacent to Calgary. Many of the residents living on acreages within the Bearspaw area work within the City of Calgary and have chosen to reside there because of the unique geographical situation which Bearspaw offers: a rural lifestyle with an urban base close by.

The trend towards acreage living began slowly in the early 1960s and has accelerated rapidly through the 1990s. In response to this, the Municipal District recognized a need for zoning practices to meet the desires of persons seeking a semi-rural lifestyle. In 1962 the Interim Development Board of the MD “recommended a policy of creating twenty acre parcels out of agricultural land” and as well they designated a zone around Calgary which would have the character of “country residential”. By 1967 the minimum size of plots was reduced again in areas where land was considered of poor agricultural quality, to allow for small holdings subdivisions of no less than 2 acres. The MD justified this reduction, in contrast to its mandate to retain parcel sizes which could support agricultural/ranching endeavors, in parcel sizes because people were seeking “fresh air, scenery and the ability to own a few animals”. This shift in subdivision development has primarily occurred in two sectors of the MD, immediately west of the city where a panoramic view of the mountains is afforded. Bearspaw (north of the Bow River) and Springbank (to the south), have been the two areas most extensively sub-divided to accommodate the “country residential” urban lifestyle.

Unlike the urban community, where houses abut one another and windows look into another, Bearspaw more closely typifies the nature of rural life – where space reduces contact with neighbours. Residents of the region typically reside in houses which are located along small country roads, or cul-du-sacs inset from main access routes. Privacy is enhanced by the rolling aspect of the land, and by the many small stands of aspen trees which obscure the view of neighbours, and by the size of acreages upon which houses are situated. The ambiance is further enhanced by small agricultural holdings which still remain between various clusters of houses, and which usually contain horse pastures. Approximately 925 dwellings are located in Bearspaw, with a total population of approximately 2,930 people. The area remains dotted with large ponds which seem to have been purposefully preserved (rather than drained to create more usable land) for the waterfowl which spend their summer months there. Many species of birds flit among the

trees and bushes and deer, moose, coyotes and other wildlife regularly wander through the patchwork of backyards and farmer's fields. The beginnings of the trend toward country-residential living in the 1960s saw the building of relatively spacious ranch-style houses, virtually indistinguishable from those of ranch-houses anywhere in Southern Alberta. But through the 1980s and 1990s there has been a trend toward more luxurious houses on smaller acreages – a style which local real estate agents refer to as “country estates”. Both land prices and the average price of a newly built house have soared, particularly through the 1990s, and few new housing starts in Bearspaw are now below the half-million (Canadian) dollar range. This transition has markedly altered the demographic mix of the Bearspaw community toward a wealthier and more professional social class.

Although the area is primarily rural-residential, with some small-scale ranching of cattle and agricultural production of grains, Bearspaw does have several locations of social activity which act as centers for community meetings and economic activity. The Bearspaw–Glendale Community Centre acts as a place of meeting for residents and as a locus of social and sporting activity for youth. School-aged children and young adults do not attend school within the district of Bearspaw but rather are bused to urban schools in Cochrane or Calgary. One of the other attractions to Bearspaw, and one which reflects its rural character, is a large theme farm called Butterfield Acres which contains farm animals and farm activities for children and families to participate in. Finally, Bearspaw hosts a farmers' market where agricultural products and crafts are sold every Sunday during the summer months, held at the Bearspaw Lion's Club.

Starting with its geological substrate, the gravel deposits, we have in this chapter sketched the main outlines of the history of Bearspaw and the Big Hill area of Alberta, emphasizing in particular the dramatic shifts in density of settlement and in the social and economic composition of the Bearspaw population over the past forty years. We have ended up with a predominately wealthy class of Calgary professionals who have built their “dream houses” in Bearspaw, choosing to commute to work in return for access to the

space and scenic values afforded by the “country residential” lifestyle. A simple index of this demographic influx is the 1A highway between Calgary and Cochrane, which is now daily clogged with traffic during the morning and evening rush hours, and which is currently being twinned to accommodate the steady flow of traffic between Calgary and Cochrane.

There is one further aspect of Bearspaw which it is essential to introduce at this point, and that is that Bearspaw (together with its sister community of Springbank, also immediately adjacent to the western edge of Calgary but south of the Bow River) is, socially and economically atypical of the Municipal District of Rocky View as a whole. The predominant character of the MD of Rocky View is mixed agricultural and industrial, with large acreages, in contrast to the country–residential way of life on 2 or 3 acre parcels typical of Bearspaw and Springbank.

The values and ethics of the majority of Rocky View ratepayers are practiced and concerned with wresting a living from their land, an increasingly difficult proposition in the 1980s and 1990s. This ethos can perhaps be summed up in a comment made before the MD Council by an Irricana farmer who likened the prospect of having a gravel pit on one’s land to a “god send” (Calgary Rural Times, March 03, 1998: 3).

Some, albeit imperfect, representation of the social and economic disparity between Bearspaw/Springbank and the rest of the MD can be seen in Table One, presented here, which provides a comparison between the quadrant of Bearspaw where opposition was focused and the rest of the Municipal District of Rocky View No. 44 on several important economic and social factors. This disparity between Bearspaw and the rest of the Municipal District might be notably wider if other rural–residential areas were removed from this sample to narrow this comparison to Bearspaw and rural sectors of the Municipal District. This Table does indicate that there are certain social and economic differences between the people who live within the Bearspaw area selected and the rest of the Municipal District of Rocky View.

**Table One: A Statistical Comparison of Bearspaw with Canada and the
Municipal District of Rocky View**

	Canada	MD of Rocky View	Bears paw
Population			
Average Employment Income	\$33,714	\$47,738	\$67,239
Average Household Income	\$46,137	\$72,304	\$93,293
Average Value of Dwelling	\$143,771	\$236,656	\$283,630
% Constructed Since 1971	46 %	62 %	82 %
University Education With Degree	11 %	17 %	29 %
Total With Post secondary Qualifications	28.2 %	34.5 %	43.5 %
Occupations			
) Managerial/Administrative	12 %	16 %	19 %
) Natural Sciences/ Engineering/Mathematics	4 %	5 %	9 %
) Farming/Horticultural/ Husbandry	3 %	14 %	8 %

Derived from Statistics Canada. 1991 Federal Census. Government of Canada Publications. *It should be noted that data for the Bearspaw region was compiled by narrowing down the Census Tracts to Census Sub-Divisions (Enumeration areas) in order to 'create' an area which more specifically encompassed the region of Bearspaw. Since Bearspaw is not an entity upon which specific data is available the most accurate level of analysis for this area was compiled. This information does vary considerably from the larger Census Tract in which the Bearspaw region is located.

I conclude this chapter where we began it, with the gravel. The more steady housing boom which Calgary has enjoyed through the 1990s has placed a premium on building materials, particularly sand and gravel. Although gravel is abundant throughout the entire foothills regions of Alberta, as we shall see, in the aggregate business, haulage distance is critical. Every kilometre further that a ton of gravel needs to be hauled increases its cost, and in a highly competitive industry there is a premium on gravel sources close to the locus of construction, and throughout the 1990s new house construction has been booming on

the northern edge of Calgary. We thus have the elements of the social drama which this thesis focuses on – the location of a gravel mine on the northern edge of Bearspaw: an intrusion of a heavy-industrial enterprise into the midst of the country-residential paradise which the residents of Bearspaw were building.

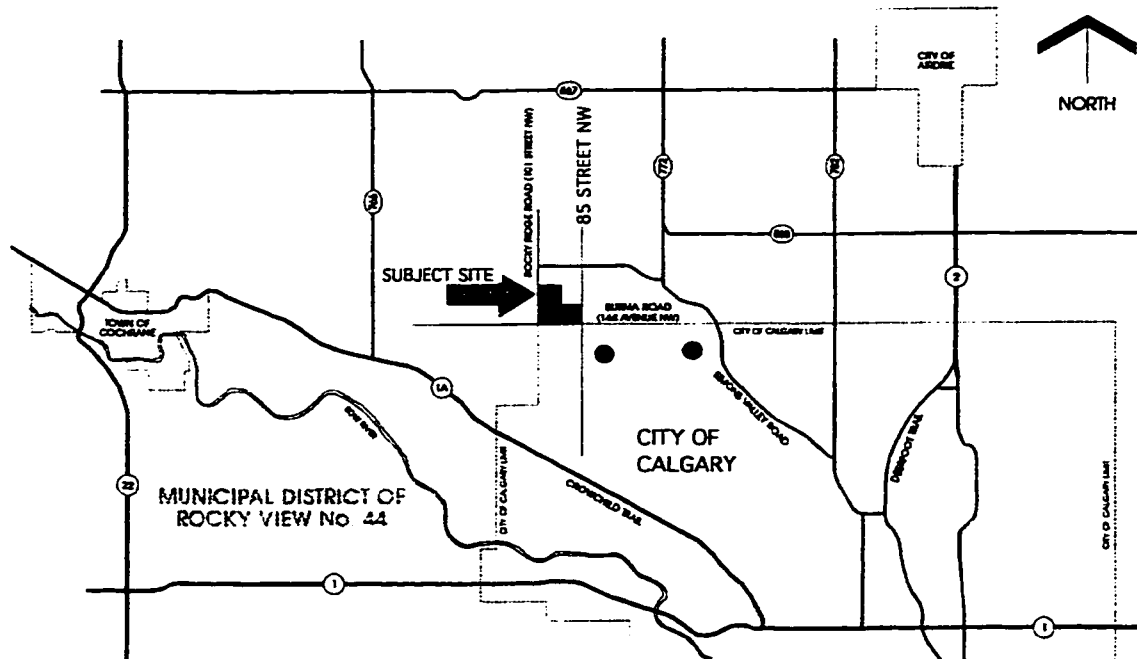
CHAPTER THREE

The Players: The Concerned Citizens, Burnco, and the Municipal District

The three principal stakeholders involved in the case studied were (1) the Concerned Citizens Organization, a coalition of individuals who live within the district or community of Bearspaw, (2) Burnco, an aggregate corporation which sought permission to mine gravel within the Bearspaw area, and (3) the Municipal District of Rocky View No. 44, the established governmental body which had jurisdiction over the matter at hand. A brief background of the aggregate industry, government in Alberta, and the factors which led the residents of Bearspaw to form an organization to oppose Burnco's plans will also be presented.

Initiation of the Concerned Citizens Organization

In May of 1992, Burnco Inc. applied to the Municipal District of Rocky View to have a parcel of land redesignated from agricultural usage to one of resource extraction. This re-designation, if successful would effectively change the legal status of this land from one which could only be used for agricultural purposes to one where aggregate, or gravel, could be mined from below the surface. Residents of the area were concerned that this re-designation would place their health, lifestyle, and property values at risk. Opposition was heightened when a second aggregate extraction corporation also applied to extract gravel on an adjacent piece of property slightly less than a year later.



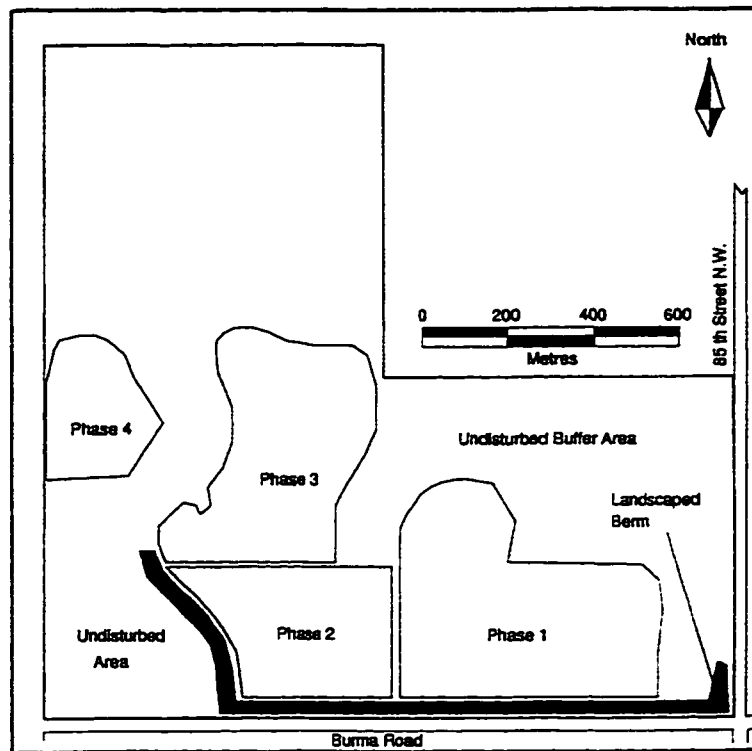
Map Four: Location of Burnco's Proposed Gravel Pit in Bears paw (Burnco Rock Products Ltd. 1994: i) (Modified from the Original).

From early 1991, when Burnco held their first open house to inform residents of their land redesignation application for resource extraction, to January of 1996, many residents of Bears paw continued to oppose the re-designation of land to allow for resource or aggregate extraction operations near their homes, or at the very least to modify the terms of the operating by-law which was being developed as part of the re-designation process, and to come to an agreement with Burnco on an indemnity package for devaluation of their property resulting from the location of the gravel pit near-by. The primary vehicle for the above was the formation of the Concerned Citizens Organization by residents in the Bears paw area.

Land Purchase and Original Development Plans by Burnco

Burnco's initial plans were to develop an aggregate operation in Bears paw which would have an expected operation span of forty years. This operation would have four

separate operation stages, with each concentrating on a specific locality within the pit site. Each stage was estimated to last approximately ten years.



Layout of Gravel Pit Development.

Map Five: Layout of Burnco's Proposed Gravel Pit/Stages of Development (Burnco Rock Products Ltd. 1994: Appendix D, 11) (Modified from the Original)

In its planning documents, Burnco stated that there was an estimated 20 million tonnes of gravel on the 230 acres of land which would be mined, out of a total of 520 acres in the Burnco holding. The remainder would either continue to be used as agricultural land, left undisturbed, or developed into a perimeter greenbelt for residents of the area to utilize for recreation purposes (Burnco Rock Products Ltd. 1994: 3, 8–9) (See Figure Two for a Layout of the Gravel Pit– Page 11, Append. D, Land Use Re designation Application Burnco). In total Burnco spent \$3,030,000 to purchase five separate parcels of property. The earliest parcel purchased was on October 16, 1992 and encompassed 160 acres (called a quarter section) for \$575,000. Two other quarter sections were also purchased for a

combined price of 1,575,000 on July 15, 1994 and October 3, 1996 respectively. Two twenty acre plots were purchased for \$440, 000 each on January 31, 1994 and September 27, 1994. These two smaller sections of land had residences upon them, while the three quarter sections were utilized for agricultural purposes. The various sections of land together comprise an L shaped area which surrounds houses along 85 Street on their South and West sides, and which borders Burma Road on the North until Burma Road intersects with the terminus of Rocky Ridge Road.

To access this gravel some thirty feet of overburden soils would be removed. This overburden will be used to create berms (long earthen mounds) varying in height from 15 to 30 feet placed along the South and North–East perimeter of the gravel pit, and which were slated to be planted in grass and trees in order to mitigate visual, audio, and dust impact upon residents of the area. During the removal of overburden it was stated that water would be dispersed on the soil to minimize dust produced by vehicles traveling over it and the exposure of this soil to wind. Once the overburden was removed, the extraction of gravel would begin using rippers and excavators. Gravel would be crushed on site primarily during the summer months when construction activity is at its height. Burnco's plans were to operate six to seven days a week with excavation occurring between the hours of 7:00 a.m. to 7:00 p.m.. During peak times the company stated that it wanted to operate crushing equipment 16 hours a day, Monday to Saturday from 6:30 a.m. to 10:30 p.m.. Furthermore, the hauling of gravel would occur from 7:00 a.m. to 7:00 p.m. Monday to Saturday with occasional hauling on Sundays. As well, they hoped to have on-site commercial sales of aggregate to customers who wished to purchase directly from the pit during weekends.

The Concerned Citizen's Organization (CCO)

The formation of the Concerned Citizen's Organization occurred in late January and early February 1992 in reaction to Burnco's desires to develop an aggregate operation

within the Bearspaw area. The central core of its membership, excepting one member, was composed of residents who lived on properties immediately adjacent to the proposed gravel pits. The explicit goal of the Concerned Citizen's Organization was to block the re-zoning of land to permit aggregate extraction, which was at that time zoned for either country-residential housing or for agriculture. This was to be achieved by organizing a broad-based coalition of Bearspaw residents in such a way that their opposition could be clearly demonstrated to the Municipal District Council, an elected body which had the legal authority to approve or to disapprove Burnco's application. Initial organization was accomplished by neighbours contacting one another over their concerns about the effects of a gravel extraction operation upon the area and their lives. Secondary members of the Concerned Citizen's Organization, henceforth the CCO, were derived from other residents in the area who shared a concern about the impact of a gravel operation upon health and lifestyle.

The initial meeting was an informal gathering in one resident's house, chosen because his living room could accommodate the approximately 30 people who attended. This, I was jokingly told, was also the reason he became the first unofficial president of the CCO. It was not until June of 1995 that the CCO formally established the executive positions of president, vice-presidents, and treasurer. These positions were developed to cope with the increased workload placed upon the CCO in their endeavors. Although the Concerned Citizen's Organization was, as we have seen, initially composed of immediately affected residents united around the land re-designation issue they were later able to draw upon broad support from people throughout the Bearspaw area and indeed throughout the Municipal District of Rocky View.

One of the means by which residents were able to inform other residents of the area of the issue, up-coming meetings and hearings, and generally to express their displeasure with Burnco, Consolidated Aggregates, and the Municipal District was through the presence of self-made signs located on fences and posts along roadways, on residential

properties, and attached to other signs. As a means of creating awareness of the issues, informing residents of meetings or activities, and voicing displeasure, these signs seemed to be effective. Signs were painted by members of the CCO and residents of the area either as individuals or during sign creating sessions organized by the CCO.

I have already indicated that signs were used for three reasons – although each sign could, and typically did, serve to meet more than one purpose. During the time of research over 20 different signs were seen throughout Bearspaw and in other areas of the MD. Signs placed outside the geographical area of Bearspaw were those placed for the express purpose of indicating the manner in which people should vote in the Municipal District elections on the plebiscite. Most signs were relatively straightforward in nature and utilized little visual symbolism (a detailed discussion of the context of these signs will be found in Chapter Five).

Apart from attention brought to the issue by the two local newspapers, the metropolitan newspaper, and some television coverage, these self-made signs were one of the primary means of gaining attention, and voicing displeasure to other residents of the MD and those who drove through the MD. The amount of support garnered by this method cannot be measured of course, but one could safely state that awareness had to be increased. Concern over these signs was also expressed by Burnco. Burnco's president, while conversing with one of the members of the CCO, sought a consensus on having the signs removed after the Municipal elections had ended. This was granted by the CCO as a show of goodwill between the two opposing interests.

Subsequent meetings were organized and held either at the Bearspaw–Glendale community centre, the Lion's Club, or at other residents' homes. The nature of meetings tended to be semi-formal, with a prepared agenda. However, participation in these meetings was open to all interested and a full spectrum of input was sought upon decisions and activities. When crucial decisions had to be made, a vote of all participants was taken and consensus was sought. Meetings were also held periodically for the purpose of seeing

where the group was at in relation to organization and activities. Although I cannot give a concise number on how many meetings were held, they approximated one every two weeks during late 1995 and until mid-October 1996, and at certain critical periods meetings were held on a more frequent basis. Membership within the CCO was not formal. No membership fees, or cards were required to become a member (the only membership lists of the CCO, it seems, were lists of interested parties or volunteers to participate in canvassing or phoning). Membership, it seemed, was defined primarily on common interest and affinity among residents of the area.

Of those persons interviewed, who belonged or participated in activities organized by the CCO, the average length of residence in the Bearspaw area was 15.3 years (with the maximum being 38 years and the minimum 1.5 years.). Education levels were at minimum high school completion, with the majority having obtained post-secondary degrees or diplomas. Occupations tended to be white collar (managerial and technical positions) except for two which were in secretarial and administrative positions, and one who farmed in the area. All, except the one resident who farmed, commuted to the City of Calgary to work. The three residents who were retired had also worked within the City of Calgary.

Municipal Governments in Rural Alberta

At present there are twenty-two Municipal Districts in Alberta. These Municipal Districts are part of a larger network of sixty-five rural municipalities which include both *counties* and *municipal districts* (AAMD&C 1996: i).

In 1905, when the Province of Alberta was created, it was recognized that the provincial government did not have the means to develop rural areas and would have to find a means of doing so. In 1912 the Province passed the Rural Municipality Act which created Rural Municipalities and Local Improvement Districts. These were geographically far more comprehensive than the earlier systems and had broader governing powers. In total fifty-five Rural Municipal Districts and ninety Local Improvement Districts were

established. By 1917 there were a total of eighty-eight Rural Municipal Districts and eighty Local Improvement Districts some of these latter having been transformed into the former (Masson 1994: 102).

In 1918 the Province decided to consolidate rural governments and continued the process of transforming Improvement Districts into Municipal Districts. The rationale for this was to create a more efficient and accountable system. Since Improvement Districts were not composed of elected members, they were to be transformed into Municipal Districts which would be composed of elected persons who lived within the district. The process of consolidation was also designed to re-align political and jurisdictional boundaries to conform with those of school boards and health boards in order to lessen conflicts over taxation and vested interests. Municipal Districts were thus created to manage the economic, social, and political affairs of rural regions with the Province of Alberta in a democratically representative manner.

Municipal Districts vary in size, population, revenue, number of elected officials, and nature depending upon their location within the province. Each MD is governed by a Council elected by rate payers, who are residents of the MD over the age of eighteen. Municipal elections are held every three years in October within the Province of Alberta. Each Councillor is elected from, and must live within, an electoral district within the Municipal District so as to represent the persons who live there. The MD Council is the principal policy making body which presides over the daily operations of the Municipal District. Both the boundaries and powers of Municipal Districts have continually been changing since their inception in the early 1900s. Since that time, their scope and authority has expanded drastically, and presently MDs can be said to be fairly autonomous entities. Each has the rights and powers of a 'natural person' ie. the ability to enter into agreements with other entities, hire employees, etc. (AAMD&C 1996: 7). The political and legal jurisdictions of Municipal Districts are designated within the Municipal Government Act and are administratively under the authority of the Department of Municipal Affairs, located

in the political capital of Edmonton. The Department of Municipal Affairs has the authority to change the guidelines and jurisdictions under which Municipal Districts operate.

Municipal District of Rocky View No. 44

In 1955 the Municipal District of Calgary No. 44 was created by the Province as part of the consolidation process mentioned earlier. In 1956 this name was changed to that of the Municipal District of Rocky View owing to feelings that being called the MD of Calgary was inappropriate for a political entity distinct from the City of Calgary (Read 1984: 354). Rocky View's emblem depicts the prairie grassland stretching towards the mountains with cattle in the foreground, an oil derrick towering above the grain silos and elevators of small rural towns, and bushels of grain standing in the prairie grassland. This reflects the rural heritage of Municipal Districts and the land uses which have and continue to occur within Municipal Districts.



Rocky View has both the largest population of any Municipal District in Alberta and the largest revenues (Masson 1994: 105). The primary interests represented within Rocky

View are farmers and ranchers, acreage owners, and residents of a number of small hamlets or towns. Acreage owners tend to be located on the periphery of the City of Calgary in areas designated for 'rural-residential' living. The Municipal District does not, at present, have tabulations which show the relative percentage of the rural to rural-residential population. Within the geographical area of the MD are large urban centers, like Cochrane to the West and Airdrie to the North, which have an autonomous status from the MD and are not included as part of the Municipal District.

Council politics often reflect a basic opposition between its farming and non-farming residents, particularly over matters of development and public policy (Masson 1994: 107). Roughly speaking we can say that this pits the inhabitants of Bearspaw and Springbank against the rest of the MD. Since the two constituencies have different concerns, and the corridor of acreage-owners has been expanding outwards from the City, this has increasingly become a concern for Councillors, who must reconcile "conflicting demands" (Masson 1994: 107). Since most of the generated revenue Municipal Districts have comes from property taxation, the elected Council is caught between the burgeoning numbers of acreage owners and the smaller numbers of non-acreage owners. While acreage owners are numerically preponderant, farm and ranch owners encompass the majority of the geographical area which composes the Municipal District. Not only does this result in tensions between residents, but also within Council as different Councillors articulate different vested interests. Both long-term ethos and established policy concerning the role of the Municipal District play a role in shaping this conflict, as the nature of the Municipal District changes. Since Municipal Districts were established to help rural development and to safeguard the farming/ranching way of life, as the corner-stone of Alberta posterity, a key element within Municipal Governments' mission statement is the 'protection of a rural way of life and agricultural practices' (Rocky View Five Weekly 1997 Vol.23, No.12: 4). There is no mention of protecting a 'rural residential' lifestyle within this statement plan, save for the need to establish a rural-residential corridor. It would seem that in this

particular case–study, this dichotomy of interests between rural and rural–residential was reflected within the MD Council, the rural–residential residents having their interests and views vigorously represented, but their representatives being a consistent minority on the Council.

If Rocky View can be said to be a rural fringe on the west, north and east of the City of Calgary, so Bearspaw can be viewed as a relatively “urbanized” (in the sense of population density, lifestyle and occupation of its inhabitants) fringe on the edge of Rocky View. As we have seen, many of the residents living on acreages within the Bearspaw area work within the City of Calgary and have chosen to live within the MD for the qualities it can offer: a rural lifestyle with an urban base and its amenities close by.

Rocky View has two local newspapers which are distributed free of charge to all rate payers in the MD. The *Rocky View Five Village Weekly* and the *Calgary Rural Times* act as the main sources of information on local politics and activities. Since the focus of these papers is parochial in nature (Masson 1994: 265) it rarely diverges away from activities and politics outside the scope of the Municipal District, or events and policies which impact the MD. The *Rocky View Five Village Weekly* is the vehicle through which “official notices” are published (these include rezoning, development appeals, election notices, plebiscite questions, etc.) The papers also act as one of the primary means through which residents of Rocky View express their opinions on events and policies. This is done through the letter–to–the–editor section which is devoted to printing letters which residents send in, and through contacting the paper to let them know of concerns or activities of which the paper should be aware of.

For example, based on a survey of these papers from 1993 to 1997, in relation to the gravel pit dispute there was a total of 134 articles devoted to the gravel pit issue directly and another 10 indirectly (the number of articles is most likely slightly higher as I had difficulty in accessing some issues for 1993/1994). As well, during this time, there were 76 letters–to–the–editor published relating to the issue. 1995 represented the peak of interest in the

gravel pit issue with 104 articles (plus 10 articles related to the dispute in some manner) and the most letters-to-the-editor, 74. Respectively, 1993 had 9 articles, no letters, 1994 had 6 articles, 1 letter, 1994 had 13 articles, 1 letter, and 1997 so far has had 2 articles. As can be expected, the number of articles and letters-to-the-editor published tended to correspond to major events or decisions which occurred during this dispute (albeit delayed slightly by the weekly nature of rural papers).

Burnco and the Aggregate Business

Burnco's gravel and cement business was started in 1912 by the great grandfather of Scott Burns the present owner and president. Based in Calgary, Burnco has expanded to eight offices in Alberta, with ownership or leasing of twenty-five aggregate extraction pits (commonly referred to as gravel pits). Revenues are generated through the sale of aggregate products like gravel, sand, and rock, concrete production and pouring (concrete is the finished product made from crushed gravel, cement, lime, water and other products), asphalt production and the paving of roads, plus the sale of other products derived from aggregate (landscaping rocks and stones, accessories, and other asphalt products used in the construction industry). In total approximately 250 persons are employed directly by this company. Others are employed on a contract or seasonal basis, as most construction work is done during the summer months which is the peak season for the aggregate industry. Seasonal workers tend to be truck drivers who haul the aggregate or concrete to the sites where it is being utilized for construction purposes or residential and commercial building.

Gravel deposits (small rocks ranging in size from 2mm to 60mm; sand is granular material ranging in size from 0.06mm to 2mm) (Smith & Collis 1993: 316, 325) are

accumulations of the more durable rock fragments and mineral grains which have been released from their parent rocks by physical weathering processes

or abraded by the action of ice (glaciers) and then worn and sorted by water (rivers and waves) and the wind (Smith & Collis 1993: 14).

The principal sources of sand and gravel are relatively young and unconsolidated superficial deposits ... which have accumulated in the recent geological past usually, in the northern hemisphere at least, since the onset of the Pleistocene Ice Age (Smith & Collis 1993: 15)

Depending upon the location and age of deposition, greater or lesser amounts of soils will cover gravel deposits. This overburden is removed by scrapers and tractors in—order to expose the rock and gravel. Blasting or dredging are the primary methods of loosening gravel so that it can be removed to a processing center where it is crushed and sorted to meet the size requirements of various usage. From the crusher location gravel is hauled by truck to construction locations or to concrete and asphalt production facilities.

There are several standard environmental concerns in relation to aggregate extraction operations. These are issues of noise, dust pollution, the long—term reclamation of the land, as well as a range of aesthetic concerns. Noise is produced by the operation of the equipment at the site (scrapers, haulers, loaders, conveyer belts, crushers, gravel trucks) and, if used, by blasting to loosen rock and gravel. Dust is produced when the top soil is removed, vehicles travel over dry earth, gravel is transported on conveyor belts, gravel is crushed and dumped, and from the back of dump trucks as they are moving aggregate. Aesthetic impact is created by the contrasting nature of the operation to that of the surrounding environment. Finally, restoration of the land is a concern due to the removal of agriculturally productive topsoil, and long—term ability to use these locations for alternate uses after the extraction location is finished (Smith & Collis 1993: 95–97). In addition, the movement of large numbers of trucks from gravel pits along roads shared by other motorists is a concern. The heavy trucks deteriorate the roadway quickly and gravel flying off of the trucks could be a source of broken windshields and paint chips on other automobiles.

CHAPTER FOUR

A Chronology of the Bearspaw Gravel Pit Controversy

Prologue

To this point there have been only indirect references to the proposed activities which residents felt would place them at risk if allowed to occur within the vicinity of their homes. Since this thesis is primarily concerned with the discourse which occurs when groups with opposing interests interact over disputations of risk the actual risks involved in the debate are subsidiary to this purpose. None-the-less the description of these risks, which were the focus of discourse, is necessary to provide the reader with a basis of context.

Although there were three primary interests involved in this case study for present I will only describe the risks which residents of the area presented as reasons for their opposition to Burnco's proposed gravel pit – and as reasons why residents claim the Municipal District of Rocky View should not sanction Burnco's application to receive a development permit. The other two stakeholder's perceptions on these risks, and other commentary relating to the actions, behaviours, will be described and discussed later. As already mentioned earlier residents of the Bearspaw area felt that the development of a gravel pit within Bearspaw would place their social, economic, and physical well-being at risk. The primary activities and features of a gravel pit which would do this were the development of an infrastructure which was seen as anathema to the nature of the area aesthetically. The gravel pit would also seen as producing noise, dust, and increased heavy industrial traffic. These four factors would reduce the economic value of residents property by making them less appealing to prospective buyers if a resident should choose to move from Bearspaw. These same perceived risks were also seen as being a threat to residents social well-being by interfering with the nature of the area which was seen as being a relatively quiet, aesthetically appealing, and safe area to raise children. A gravel pit would alter this by visually impeding/impacting upon residents views, increasing the level of noise in the area

through the excavation of aggregate, crushing this aggregate, and by the sound of heavily loaded trucks traveling continuously over roads near to their residences. There was also a concern that residents ability to observe wildlife regularly (primarily deer) would be reduced due to the gravel pit scaring them away and impeding their movement through an area which they presently utilized to move from one foraging area to another. The concern that residents physical well-being would be placed at risk was due to two primary set of concerns. The first concern was in relation to an increase in gravel truck traffic which would occur along the same roads which residents utilized for driving, walking, and for transport of their children to and from school on school buses. This would produce situations whereby residents of the area would be placed at greater risk of being in an accident with one of these trucks; particularly since the drivers of these vehicles were considered to operate the vehicles in an unsafe manner. The greatest concern was that a school bus and a gravel truck would collide hurting many children at once. The second perceived risk was to residents respiratory system through the increased inhalation of dust created during excavation and crushing. This dust was cited as having the potential to damage lungs (silicosis) and precipitate asthma attacks in residents who had this condition. Although brief the above are the basic risks and tenants which residents noted as reasons for being opposed to Burnco's proposed gravel pit.

Table Two: The Concerned Citizens Organization's Stated Risks and the Expressed Reasons for Concern in Relation to these Risks

Type of Risk	Expressed Reason for Concern
Increased Gravel Truck Traffic	a) Increased potential for accidents between gravel trucks and residential vehicles b) Increased Noise
Exposure to Dust	a) Negative health effects upon those with asthma and potential of developing silicosis through inhalation of silicates b) Reduction in quality of life
Impact upon Property Values	Would decrease property value and reduce ability to sell property should a resident choose to.
Impact on Wildlife	a) Would alter land which presently supported wildlife to one which would not be suitable. b) Would alter wildlife movement and prevent residents from enjoying this aspect of a rural lifestyle.
Setting of Development Precedent	Would establish the groundwork for other aggregate operations to develop pits in the area.
Water Quality/Volume Reduction	Due to the depth of mining residents water wells could be affected through alterations to the water table.
Aesthetic	a) Gravel pit would be contrary to the nature of the area and be aesthetically unpleasant.
General Reduction in Quality of Life	The above factors would reduce the present quality of life which residents currently enjoyed and had moved to the area for.

Chronology

My overview of events will primarily concentrate on events which occurred during 1995 when I was undertaking the bulk of research. Nineteen ninety-five is also the year in which the majority of activity took place surrounding the proposed aggregate extraction operation and the culmination of activity crested. For these reasons information is fullest for this period. Nineteen ninety-six and 1997 represented the dénouement of the controversy. I have provided a Diagrammatic Time Line in Appendix A to simplify a long and complex time frame and for quick reference. This Time Line, and the overview in this

chapter, has been put together from media sources (the Rocky View Five Village Weekly, the Calgary Rural Times, and the Calgary Herald), interviews, and my own attendance at various meetings of the CCO, MD of Rocky View Council, Court Hearings, etc.

We have already noted the applications made by the two aggregate corporations which precipitated the organized opposition by residents of Bearspaw. What I wish to lay out here is a more detailed account of what transpired. In this overview of events and activities, there is no intent to depict right and wrong as my analysis is not intended to be judgmental in nature. If the impression is given that this is occurring it is most likely due to the fact that the CCO is the primary focus of my research because my concern is to understand how the people of Bearspaw perceived, imagined, conceptualized and articulated the risks of the two proposed gravel pits. This requires, of necessity, the need to dwell at length on their views and their perspective. The perspectives and views of the MD of Rocky View and Burnco are not as comprehensive, but shall be used to provide juxtaposition and coalescence (notably with reference to the two MD councilors who represented residents of Bearspaw and who supported their stance).

Residents of the area had become aware of Burnco's intentions in late 1991 when Burnco had an open house in the area to announce their intentions. Through the ad hoc method noted earlier a number of residents met and organized into the Concerned Citizens Organization to oppose these plans. In May of 1992 the MD Council met to hear Burnco's proposal. One hundred and thirty residents also attended this hearing (which was required by mandate to hear from both proponents and opponents), and were able to go before Council and voice their concerns. The hearing lasted over six hours owing to the length and number of submissions made by Burnco and residents. At the end of the hearing the MD Council voted 8 to 1 in opposition to Burnco's proposal.

Meanwhile the MD of Rocky View was in the process of developing an Area Structure Plan for the Bearspaw area (named the BASP – Bearspaw Area Structure Plan). The purpose of this plan was to define the long-term development goals and land usage policy

in the area. Public input was sought in the development of this plan; accordingly, several open houses were held and a survey distributed to residents of the area to solicit their views on the long-term development of the area. Members of the CCO were aware that the aggregate corporation might re-apply to the MD and that the BASP, once finalized, would be an important factor in determining whether land within Bearspaw could be utilized for resource extraction. Therefore, mindful that the gravel pit issue was lurking in the background, attention was concentrated on sharpening up the “country residential” character of the area, and on the exclusion of heavy industry in the Area Structure Plan.

Shortly after the hearing in May of 1992 the CCO arranged to have a poll taken at the MD offices during one of these open houses. One hundred and fifty-one persons were asked by one of the local newspaper reporters whether they would want a gravel pit near their homes. Of this number 150 responded no and this was submitted to the MD as an indication of the lack of support for this industry by residents. In November of 1993, as the BASP was nearing completion, it was noted by residents that the BASP included sections in relation to aggregate extraction; and that the Planning Department of the MD had ‘earmarked’ the area which was being sought after by the aggregate concerns for resource extraction. This action was perceived by many residents, who initially believed that the MD Council had strongly endorsed their position on gravel pits, had the effect of politicizing the issue, and of shifting the sights of the residents’ attention from Burnco and Consolidated gravel companies to the MD Council itself. It gradually became clear to the CCO that while the Councilors who represented Bearspaw strongly shared their views, they were in a distinct minority on the MD Council.

It was not until late November 1994 that the MD Council heard Burnco’s re-application to the Municipal District for an aggregate operation in the Bearspaw area. Burnco had modified their initial application to make it more detailed and directly to address concerns which had been raised at the initial hearing in May of 1992. This time Council voted in favour of Burnco’s re-application proposal and therefore set in motion a series of future

hearings. In such re-designations, two further hearings were mandated before a development permit could be issued. The purpose of these hearings would be to work out any concerns raised in relation to the operation and to lay out the guidelines under which the extraction operation could operate. These guidelines would be the legal by-law under which the applicant would have to operate.

In response to the Municipal District's decision, Burnco finalized its purchase of the 480 acres of land in the Bearspaw region which they had already exercised options on at an earlier date. This process of exercising options is a method whereby a interested party pays a agreed upon sum to the present owner to obtain an legal entitlement to purchase at a future date. The land is therefore held in lieu until favourable conditions occur for the party to purchase or when they choose to cancel their option upon the land. The next hearing occurred on December 6, 1994 where the second reading of the land re-designation was to occur. Council eventually delayed the vote on this second reading after some eight hours of submissions by residents and representatives of Burnco until January 17 of 1995. The application of a second aggregate company which had also applied to the MD for re-designation of land, was to be heard a week after this began with certain governmental changes which would prove to be important for the residents of Bearspaw. On January 1 the new Municipal Government Act was given royal assent, a process by which an enactment is given legislative efficacy within Canada. The Act, which governs the activities of Municipal Governments in Alberta, had a clause within it which gave residents of Municipalities the 'right' or ability to petition matters (Municipal Government Act S.A. 1994, C.M-26.1) which related to planning and other concerns. Petitioning is a legal process entitling an individual or a group to collect signatures of persons within a defined jurisdiction for the purpose of demonstrating support or opposing an act of government. This would prove to be an extremely effective tool utilized by the CCO.

On the other hand, the Municipal District of Rocky View was to place restrictions on access to recorded tapes of the MD hearings in relation to Burnco's application. These

restrictions, in effect, prevented public access to these tapes. A court order was obtained by the CCO to access these tapes and the CCO was required to pay levied fees for listening to them. Members of the CCO were also to eventually obtain a court order preventing the MD from destroying these tapes. The Concerned Citizens Organization wished to have access to the tapes for the purposes of potentially filing a legal motion against the Municipal District for having taken into account monetary considerations during a planning hearing. This “monetary consideration” was in relation to Burnco’s offer to provide a voluntary business license fee to the MD should their gravel pit proposal be approved. The consideration of monetary concerns in relation to planning hearings is deemed improper due to money over-riding the primary purpose of planning hearings which is the propriety of the intended project or activity. Whether the Municipal District did breach procedural guidelines was never determined (due to events which will be discussed later) and remains as an unsettled question.

On January seventeenth Council met as planned for the second reading. The outcome: a six-to-two vote in favour of re-designating land in Bearspaw for aggregate extraction. The two Councilors who voted in opposition were those who represented residents in the Bearspaw area. One week later, at the second aggregate company’s hearing Council voted six-to-three against thus ending their application process until they choose to re-apply. The reason given for this negation was that the MD wanted to see how the first pit operated before allowing a second aggregate extraction operation in the vicinity.

In late February the MD Council convened for the third and final reading of the application. At the end of the hearing a vote was called but was prevented; two of the Councillors walked out of chamber thus preventing a quorum of Council. This effectively prevented a vote from occurring since by law all Councillors must be present to vote on an issue. Two weeks later this occurred again. This action, by the two Councillors who represented the interests of residents within the Bearspaw area, was the only one which

could delay the vote and also demonstrated to their constituents their level of opposition within the boundaries of decorum.

During March, Council met once to discuss the Burnco development bylaw (C-4375-94) and decided that the matter should be recessed until April 11 to give time for all Councillors to consider the issue. The CCO organized a Pub Night at a local bar in Cochrane for April 04 to raise money and generate support. Approximately 100 people attended this event. The MD staff continued to work on the by-law in order to make it conform to the concerns which residents of Bearspaw had expressed to them during Council hearings. They therefore decided to delay the third reading again until late April or early May so that changes could be implemented to the by-law in a satisfactory manner. The actual vote was to come on May 9 when Council again voted six-to-two in favour at the third reading. During the intervening time, a consortium of aggregate and trucking companies initiated a Trucking Registry program which comprised 85% of the companies which haul gravel (one of the most frequently voiced complaints by residents was in relation to the manner in which trucks were driven and the impact they had upon other vehicles). This Registry program was designed to establish a system whereby persons could report improper driving conduct by dialing a phone number set-up to handle complaints. Each truck would have an identification number on it for the purpose of determining exactly which aggregate hauler the complaint was being made against. A code of discipline was also established to penalize those truckers who did not conform with proper driving conduct.

In May of 1995 the CCO decided to take advantage of the new petition regulations in an effort to override the Council decision with plebiscite. They devised two separate petitions by which they would seek to achieve their goals. The first petition asked the Municipal District to rescind their land re-designation decision and the second petition sought to have the Municipal District establish a by-law which would establish a half-mile buffer zone between residential areas and industrial development. To effectively ensure that the

petitions would be official and binding the CCO obtained a legal tax roll of all residents within the Municipal District and produced an information package on the legal formalities which must be observed while petitioning.

For a petition to be deemed legally binding they typically have to meet certain conditions designated by the government. In this case ten percent of the population of the Municipal District had to sign the petition. Each signature must be witnessed by the canvasser as to the date and place of collection, and the signature must be placed beside the proper location of residence stated on the petitioning form. Those persons signing the petition must be of legal voting age and residents of the political jurisdiction under which the act being opposed falls within. Once the petitioning process is begun, there is also a set time within which signatures are allowed to be collected. When complete the petition has to be delivered to the government towards which the petition is directed. At that time the elected members of the government have two options: they can either accept the petition, or place the petition question to a plebiscite whereby all electors have the opportunity to vote on the issue.

The Concerned Citizens Organization had been considering the possibility of petitioning before the actual third reading of Burnco's land re-designation application. When the MD of Rocky View gave third reading to the land re-designation application on May 9, 1995 the Concerned Citizens Organization already had some of the preliminary work completed toward its petition. When the CCO held their first major petition meeting at the Bearspaw/Glendale Community Centre they already had petitioning packages with all the details necessary for persons to start collecting signatures. The petitioning packages were indicative of the level of organization which the members of the CCO had demonstrated in other activities which they had carried out in their efforts.

At the meeting, persons who volunteered to collect signatures were organized under different designated captains whom were responsible for different geographical sectors of the Municipal District. Each petitioner was to contact this 'captain' if they had questions or

concerns in relation to the petitioning process; and to whom they would report bi-weekly tallies of their signature totals so that the CCO would have an estimate of how close they were to attaining the prescribed ten percent of the MD population. Information, which was duplicated in the petitioning packages, was gone over with the canvassers. In practice sessions the rationale for opposing the implementation of a gravel extraction facility within the Bearspaw area was rehearsed by several of the core members of the CCO so that Canvassers would present a consistent view for why members of the CCO were opposed to Burnco's plans and the MD's stance to those residents whom they were seeking signatures from. Also, various legal pitfalls were noted, and the necessity of not making negative comments about Burnco, the aggregate industry, or MD Councillors (see Appendix B for duplications of this material). Forty-nine persons were present of which 24 were male and 25 female. The majority of persons being over 40 years of age. One television reporter and two newspaper reporters were present with coverage occurring on the evening news and in the two local papers later that week when they were published. The CCO also placed full-page ads, at a rough cost of \$400-420 each, in the local newspapers informing persons within the MD of the issue and the concerns of the CCO (see Appendix C for a verbatim copy of this advertisement).

The actual effort of carrying out the petitioning process was quite extensive owing to the sheer size of the Municipal District and the time required to travel between the highly dispersed houses in the canvassing process. In total it was estimated that some 45 petitioners collected signatures during 500 hours of canvassing (estimates were provided by the CCO) between May 18 and late June of 1995. The Concerned Citizens Organization also placed the cost of carrying out the petitioning process at \$5000, of which \$500 was a fee charged by the Municipal District in order for the CCO to obtain the tax roll which detailed the names and legal location of all eligible voters within the District. The CCO circulated two separate petitions which they were seeking to have 10% of the MD population, which by the last official population census taken in 1993 at 19,888.

Petitioners collected 2,480 signatures on the first petition and 2,340 signatures on the second petition. The lower number of signatures on the second petition seemed due to some residents concerns the banning of industrial development could include activities which they undertook or which others undertook in the MD. They felt, therefore, that the wording of the second petition was not exact enough in its definition of industrial development.

When the period during which residents could collect signatures elapsed, the CCO delivered the petitions to the MD of Rocky View's Chief Administrative Officer on July 4. With this they included an official letter noting the efforts, areas, and overall result of the petitioning process. Media were present at this event, and eight residents attended the brief transferring 'ceremony' in the front foyer of the Municipal District Offices. On August 3 the MD accepted the first of the two petitions as legally sufficient and rejected the second as not pertaining to the by-law in question. In the intervening time, the MD Council had to decide whether the petition would be accepted as such and thus rescind the third reading of their land re-designation approval, or whether they would place the question to a plebiscite of all rate payers within the Municipal District. This latter option was decided by the MD Council on the 15 of August, 1995 .

In late July the Municipal Government Act was amended by the Alberta Government to remove the right to petition planning and land use matters. It was stated within a press release by the Department of Municipal Affairs that the removal of petitioning planning concerns was justified by "the already exhaustive public notification and participation process" (The Calgary Rural Times 1995 Vol. 2, No. 16: 1). This amendment came into effect September 1, 1995.

The MD of Rocky View decided to place the first petition question to a plebiscite at the Municipal elections on October 16, 1995, and so the CCO began its work on the electoral campaign in earnest. Shortly after the August 3 acceptance of the first petition 12 members of the Concerned Citizens Organization had met to discuss what the next steps should be in

their attempts to rescind the land re-designation approval. The MD made this decision on August 16 and by the 30 of August the CCO had organized a meeting at the Community Centre to prepare for this vote. Thirty people, plus two of the MD Councillors who were sympathetic to the residents, attended this meeting. During the meeting the CCO sought the opinions and advice of anyone who wished to speak. The petition drive had convinced the CCO that there was overwhelming opposition to the gravel pit in Bearspaw, and considerable sympathy for the plight of Bearspaw residents elsewhere, but the problem was how to publicize this plight widely in other parts of the MD.

However the whole petitioning effort was thrown in doubt when Burnco moved to seek a court hearing concerning the legality of the process. This motion was filed on August 25, and the court indicated it would hear the case starting on September 28. On August 30 the CCO organized another meeting at the Bearspaw–Glendale Community Centre. Two MD Councillors and 30 residents attended the meeting which was designed to decide strategies for persuading the electorate to vote in favour of rescinding the re-designation decision; and to attempt to gain support among potential new Councillors.

On September 9 seven core members of the CCO held a meeting to decide on future actions. On September 12 the Municipal District Council met to decide upon the wording of the plebiscite question. The Court of Queens Bench convened on the 28 of September to hear the initial arguments from lawyers representing Burnco and the MD of Rocky View with respects to Burnco's contention that the petition contravened the legal hearing process they had undergone in obtaining a land re-designation decision. Proceedings were also to occur on September 29 with a decision by the presiding judge to be given on October 03. Burnco was represented by two lawyers and the MD by one. Nine residents of Bearspaw and five employees of Burnco also attended the hearing. The judge ruled in favour of the Municipal District, stating that the petitioning process was not in contravention of due process (the process through which decisions are legally made by decision making bodies); and that the residents were legally entitled to carry out a petition and the MD to place that

petition to plebiscite. The Municipal District sought court costs from Burnco for their legal challenge. The next day the aggregate corporation filed an appeal to the judge's decision in the Appellate Court of Alberta.

A day earlier twelve residents met at one of their houses to launch a sign campaign. These signs were directed towards creating support for the CCO in relation to the plebiscite question and were widely distributed over the Municipal District. October 04 also saw another meeting of the CCO to decide upon what path would be taken if they did not have a vote which favoured their interests at the upcoming election. As well members of the CCO had to discuss the court motion they had filed against the Municipal District, which was to be heard shortly after the upcoming election, and other matters which had to be discussed and decided upon to some degree or another. This meeting would last from 8:00 pm till after 11:30 pm that night.

The appeal was heard on October 10 by the Appellate Court which ruled in favour of Burnco. This ruling was made in Burnco's favour based upon the consideration that the Government of Alberta had never intended planning matters (which the gravel extraction operation and the by-law which authorized it was) to be petitioned. This, it was stated by the court, was based upon the fact that the Municipal Government Act was altered only nine months after it came into effect to specifically state that planning matters were not petitionable. This change was intended to correct an error in the earlier Municipal Government Act.

Many residents attended both court hearings, and supplemented information for the Municipal District to argue its case against Burnco's motion. During interludes in the proceedings, or while waiting for proceedings to begin, discussions between residents and employees of Burnco occurred on an informal basis over the issue. Employees of Burnco and residents tried to sit on opposite sides of the court room, a circumstance which necessitated the researcher to choose one side of the room or the other to sit on. While I sat on the side of the room where Burnco employees were sitting, rebuking gestures were

directed at me by some residents who were in attendance, albeit only in a half-joking manner.

Following the October 12 decision by the Appellate Court that ruled the petition invalid, residents of Bearspaw, and specifically the central members of the CCO, had to consider what options were available to them. As they had a court case pending against the Municipal District, which was to be heard later in October, they had to decide whether to proceed with this action or not. The CCO organized a meeting at the Community Centre on October 18 to gauge the level of community support for continuing the challenge to the MD on their land re-designation decision. At this meeting, residents were brought face to face with the necessity of raising major amounts of money if the court challenge was to continue, and even core members admitted their trepidation at the prospect of facing significant liability in the event of a counter suit by Burnco. Lawyers for the CCO, who spoke at this meeting, made it clear that even if the lawsuit went ahead the likelihood of success was far from certain. In retrospect members of the core group have said, "Money was always a big issue". In addition, emotional considerations weighed heavily upon those present. Many expressed being tired by the fight behind them and to having limited strength left to continue the battle. Tears were shed by several persons present. It was stated by one of the main members of the CCO to those in attendance that no one should feel ashamed about not continuing to openly oppose for they had all done their best.

This was not quite the end of the issue. The Municipal District of Rocky View No. 44 still had the option of appealing the Appellate Court's decision to the Supreme Court of Canada. This was an option proposed by the two Councillors who represent residents of the Bearspaw area. However, on October 24 Council, in a five-to-four vote, discussed taking this step, and eventually, in a 5-4 vote on the 21 of November the MD Council decided against this option. Furthermore, the removal of the right to petition planning matters in the Municipal Government Act, and the Court's decision upon the matter, sparked a small upheaval among a broader section of the population. A popular radio show

devoted an hour not only to coverage of the democratic implications of this, but also delved into the broader issue of good government. An editorial also appeared in the Calgary Herald with a discussion of “what democracy really means in practice”. Essentially, this editorial argued that the Municipal District and the Alberta government were sublimating democracy by not listening to those persons who had elected the constituent members of government and by removing citizens ability to petition planning matters. This issue was also dealt with in the two local newspapers.

Council was to meet shortly before Christmas to finalize the details of the Land Re-designation by-law which would be the final requirement before obtaining a development permit to start gravel extraction. Council again delayed this hearing so that further fine-tuning could be made to the by-law. On January 16, 1996, close to four years after the initial application by Burnco, the by-law was approved, although with further alterations at the insistence of the two Councillors who represented Bearspaw residents. Four residents and seven employees of Burnco attended this hearing. The company was not actually to receive a Development Permit until March of 1997 owing to having to satisfy a road access requirement stipulated in the Development Permit By-laws. Work on the site began soon after.

It seems likely that the various delays, exactions, and restrictions on Burnco were intended to signal to Burnco that the MD very much intended to apply its regulatory power fully and to signal to the residents of Bearspaw, who were bitterly disappointed at the failure of their opposition, that, although the gravel pit had been allowed to go ahead, it was subject to a degree of regulatory stricture unprecedented in Alberta for aggregate operations. With this outline of events in mind, I now turn to the question of risk discourse as it was manifest in this case.

CHAPTER FIVE

The Expression and Perception of Risk

This chapter will seek to provide a basis from which conclusions can be made regarding the three general expectations which were set out in the introduction. These were 1) each of the stakeholder's stances upon the issues will co-incide with their interests. 2) if risk has become a mode of discourse through which divergent interests communicate with each other and give expression to their interests then we should expect to see an acceptance that these risk are 'real' by each stakeholder; producing a situation whereby acceptance of the risks exist between each of the stakeholders while at the same time differing in opinion upon whether these risks are manageable, are worth consideration, or upon whether the perceived impact of an activity will produce the effects feared. 3) if risk discourse is social and imputes morality and responsibility then we should expect to find statements which allude to these characteristics.

The first expectation was that each of the stakeholders would depict the risks involved in a manner which supported their interests. The primary difficulty in making this correlation is in determining what the interest of each stakeholder is. For the residents of Bearspaw and the entity of Burnco this is not highly problematic. Bearspaw residents sought to preserve a way of life which they had chosen, ensure that the economic investment in their property was not reduced, and prevent any activities which could physically harm them. These elements were drawn out of the interviews which were conducted, but were also available to any reader of the two weekly newspapers which residents of the Municipal District received. Burnco's interest was to get approval for their application with minimal impositions placed upon their business activities, in relation to the pit, by the Municipal District. The desire to have minimal restrictions placed upon their business activities stems from an attempt to remain as competitive as possible in relation to other gravel pit companies in the Calgary region. Competitiveness being derived from

minimizing development costs when constructing the pit, from reducing operating costs, and from maximizing profit from the pit.

There is a difficulty in determining what the interest of the Municipal District of Rocky View is in relation to Burnco's application and the resident's opposition. This is complicated due to the fact that two of the Councilors on the MD Council were opposed to Burnco's application, while five voted in favour of the application (with modifications). For simplicity the interest of the two Councilors who were opposed to Burnco's application for a development permit can be conjoined with those of the residents. We can consider this reasonable due to the fact that both of these Councilors represented residents of the Bearspaw area and lived within the two political jurisdictions within which Bearspaw lies. The other five Councilors', even though they supported Burnco's application, interest in this affair cannot be as easily determined as the former two. To state that their interests coincided with Burnco's cannot be supported. Nor can it necessarily be argued that 'their' interests were inherently opposed to the residents of Bearspaw. Rather, it shall be argued that the majority of the Municipal District Council's interest in supporting Burnco's application seemed to rest primarily upon their perceived role as a governmental body. Their stated stance on the issue was to ensure that economic activity occurred within the Municipal District while seeking to also ensure that the well-being of those persons who lived within the region were safeguarded as well. In this perspective economic activities which placed people at risk were to be allowed for the greater well-being of the broader polity while having regulatory impositions attached to those activities which placed people at risk so as to minimize or eliminate the risks which occur with different economic activities. This last definition represents an amalgamation as it is influenced by the literature which depicts government as playing a strongly supportive role in buttressing businesses (Leiss and Chociolko 1994: 39) while also incorporating material from this case study. The interest of government, in relation to disputes surrounding large infrastructures, seems to be derived from the final outcome rather than from an 'internal'

state. This outcome is the play of several forces competing to exert enough influence upon the decision making body to achieve their desired end. The end decision is therefore a compromise between these stakeholders, and a compromise which may not leave either satisfied. The final decision may therefore rest upon the degree and manner of support and opposition which is expressed and undertaken, how effectively this is done, and the composition of the deciding body. In this sense the interest of government is inherently dependent upon the stakeholders who petition it, and not upon a prescribed ethic to which its component representatives hold (except if one argues that the above process is what the fundamental basis of democratic government is). Given the consideration that it is axiomatic that each of the stakeholders should depict the risks in a manner which supports their interests I will not seek to belabour this point.

Related to the above was an expectation that we should expect to see an agreement between stakeholders over the fact that risks would be created yet, at the same time, a disagreement over whether these risks could be managed, mitigated, were necessary, or would produce the effects feared. Each side would be effectively ‘skewing’ the risks in accordance with their interests. Following is an examination of this.

As noted earlier those residents of the Bearspaw area who were opposed to Burnco’s proposed gravel pit presented an array of risks to the Municipal District in an attempt to persuade the MD to vote against Burnco’s Development Permit application. When residents expressed their concerns to the Municipal District that their social, corporal, and economic well-being would be placed at risk representatives of Burnco were allowed to respond to these concerns (with the concomitant effect that residents responded to these responses). Furthermore, as events progressed members of the Municipal District Council also expressed their opinions on this issue. It is difficult to state which expressions of risk were reactions to other’s expressions, but for the purposes of simplicity Burnco’s depiction of the risks which residents presented will be given first, then residents response to these, and finally the Municipal District’s depiction of the risks. In each of these depiction’s the

focus is upon whether the risks were ‘manageable’, could be mitigated to a degree which would make them an ‘acceptable’ risk, or were worth assuming in consideration of other benefits – primarily economic. The fact that in this particular case study the accused did not deny that risks would be created through the development of an aggregate operation does show support for the contention that accusations of risk cannot be denied out of hand.

Burnco’s depiction of the risks was that each could be addressed and satisfactorily dealt with through various solutions. Starting with dust and noise Burnco stated that these could be managed through the implementation of technology. The solutions which they advocated was the creation of berms around the perimeter of the site, continuous spraying of water and/or a chemical solution over exposed areas of soil and aggregate to prevent the wind from carrying soil and aggregate silica towards residents homes, and enclosing the crusher system. The development of a perimeter berm would also address residents concerns that the gravel pit would be anathema to the aesthetic nature of the area; thus placing their enjoyment of the landscape at risk by marring their view. They argued that once the berm was in place, and planted with vegetation native to the area, the pit would not be able to be seen by residents of the area and would correspond and blend into the landscape surrounding the pit. The reduction in property values was addressed by Burnco with a proposed indemnity package which would monetarily compensate residents who lived immediately adjacent to the pit when they sold their property; if they could prove that their property had decreased in value.

The risk that wildlife would be harmed was not addressed through a proposed measure. Rather, Burnco argued that gravel pits do not affect wildlife and actually can offer wildlife a refuge away from other human activities. Support for this contention was presented to the researcher during two planned visits with employees of Burnco to two separate gravel pits which they operated. At each of these locales wildlife was pointed out resting within large pools of water, or wandering along the edge of the pit where vegetation was present. An employee of Burnco commented that the company had tried to persuade Bears paw residents

to go on tours of these pits as demonstrations of their contentions that noise, dust, and wildlife could be mitigated and not harmed but were not accepted by residents.

Finally, Burnco stated that the risk of accidents occurring between gravel trucks and resident's vehicles or school buses upon which their children were traveling was being addressed, and therefore reduced, through the creation of a Trucking Registry which would increase the quality of driving among those who drove for the participating members of the aggregate industry. This registry would also place the means of reducing the risk of accidents occurring by given residents the means to report unsafe driving practices if they were witness to them.

Through the above means, and in consideration that Burnco was not placing wildlife at risk, Burnco felt that they could address the risks which residents of the area presented as reasons for the Municipal District to revoke their application for a Development Permit. Burnco also presented monetary benefits to the community and the Municipal District, and economic development in general as further rationale for accepting the activities which are undertaken and occur with a gravel pit. Residents of Bearspaw responded to Burnco's pretensions that the risks were manageable by counter-arguing that these risks were not in fact manageable through the means presented.

The CCO argued that neither air particulate (dust and silica) nor noise could be effectively reduced through the means by which Burnco stated they could be. Residents, particularly those on the eastward side of the proposed location, noted that the westerly winds were too strong to prevent soil and particles from the crushed aggregate being blown from the pit to their homes. They also cited, as evidence for this contention, being able to hear noise from gravel pits which were at a further distance than the one proposed by Burnco. The solution of enclosing the crusher as a means for further preventing noise emanating from the pit was not accepted by residents as a solution which would work due to the fact that this system had not been used before. Residents wanted proof that an enclosure system would work before conceding acceptance. This stance of non-acceptance

for Burnco's solutions also extended to Burnco's argument that the aesthetic appeal of the area could be preserved through the contouring of a created berm to blend with the present landscape and planted with native vegetation. Both residents on the West and East side of the proposed pit argued that the height of the berms would then prevent them from enjoying the panoramic view which was currently afforded from their homes and/or from the roadways.

Needless to say residents did not accept Burnco's indemnity plan for compensating homeowners if a devaluation of their property values occurred, that wildlife would not be harmed, or that the Trucking Registry Program would reduce the risk of accidents involving gravel trucks and residents. Both the indemnity plan and the Trucking Registry Program were seen as either not being comprehensive enough, enforceable, or after-the-fact remedies which did little to reduce the 'actual' risk of reducing property values or accidents.

Finally, the Municipal District of Rocky View Council had to assimilate the submissions made before them and decide upon whether to grant Burnco a Development Permit. Through the process discussed earlier in this paper after initial consent the MD Council would also have to develop a set of operating guidelines which would govern the activities at the gravel pit. The stated stance of the Municipal District was that although risks would be created through this gravel pit these risks were necessary for economic development to continue in the region. At the same time they noted that the well-being of residents in the area had to be safeguarded. This was achieved by granting approval for the pit while at the same time imposing restrictions which would seek to mitigate or manage the activities which residents stated would cause risks to levels which would be 'acceptable'.

It may be seen that each of the stakeholders involved in this case study sought to demonstrate that the agreed upon risks could be dealt with in a manner which reflected their interests. Burnco sought to demonstrate that the risks could be dealt with through technical innovation and practices, through self-imposed regulation, and by noting that gravel pits

did not truly place animals at risk. By doing this they sought to demonstrate to the Municipal District Council that they should approve their application and allow the pit to be approved with the operating parameters, albeit slightly altered, submitted to the MD by Burnco. This would effectively allow Burnco to operate the pit in a competitive manner with other pits in the area which had little restrictions placed upon them by the jurisdictions within which they operated.

Residents of Bearspaw sought to demonstrate to the Municipal District that these innovations, practices, and self-imposed regulations would not be effective and would still place resident's physical health, economic investments, and social well-being at too great of risk for the MD to grant approval to Burnco. Succinctly stated these residents did not want a gravel pit near their homes and the risks would be depicted in a manner which would buttress this stance.

Finally, the Municipal District occupied a position whereby it had to fulfill two obligations. One, to ensuring that economic development occurred within the Municipal District. Two, to ensure that the wishes of those persons who had elected, and were to be represented by, the Municipal District Council were given heed. The interest of the Council was therefore to achieve a balance of interests which although not satisfying either of the stakeholders would produce a result which would balance these contending poles – each seeking to demonstrate that the risks which each are depicting are controllable or not, can be mitigated or not, or are not an inherent concern.

The above material has sought to provide a basis for connecting the actual case study to two of the hypothesized expectations derived in the introduction to this thesis. The third expectation, that we would expect to find statements which alluded to breaches of responsibility and morality couched in the language of risk, is the most pertinent in terms of relating risk to other modes of discourse and/or belief systems. Little of the anthropological material on witchcraft has dealt with the two former tenants except in case studies which examined the usage of witchcraft among two or more competing rivals for

political office (Ardener 1970; Arens 1980; Brian 1970; Crawford 1970; Douglas 1967; Douglas 1991; Goody 1970; Gray 1969; Hallen and Sodipo 1986; Jackson 1975; Lienhardt 1951; Marwick 1952; Nadel 1952; Wyllie 1973). For the most part, at least in relation to those studies which were undertaken in Africa, the material has tended to examine witchcraft from a functional point of view. Seeking to demonstrate the 'role' which witchcraft played in bringing about conformity to expected behaviour and/or responsibility. In this sense witchcraft accusations were one form of negative sanctions through which others sought redress for breaches of these. The fear of being accused of being a witch was also seen as having a normative effect in preventing breaches of expected behaviour/responsibility from occurring in the first place.

The Bearspaw case study shows that a predominant portion of the discourse made by the CCO involved accusations that they would not be under the threat of being placed at risk if the Municipal District acted in a morally responsible and democratically representative manner and Burnco as a responsible corporate citizen. To a lesser degree the Municipal District was to assert that the pressures being exerted upon the MD by residents in Bearspaw could place the rural economic heritage of Rocky View at risk by seeking to curtail those activities which were 'part and parcel' of rural areas throughout Alberta. Burnco also would state that the opposition of residents and poor long-term planning by governments was a risk to the aggregate industry in being able to effectively and safely carry out business. The following is a summation of some the dialogue which occurred during interviews and obtained from other sources by each of the stakeholders.

At this juncture, though, the insertion of the "discourse" which found its way onto signs placed throughout Bearspaw and the Municipal District by members of the CCO, should help to illustrate the above two discussions and the one to follow. As already mentioned these signs were unavoidable, having been placed along roadways, and acted as one means of both informing residents of the area of up-coming events, the issues, and

residents displeasure with both the MD and Burnco and Consolidated. Examples of the wording on these signs were as follows:

- Proposed Gravel Pit (with an arrow pointing towards the proposed Burnco or Consolidated pit sites)
- Help Beat Burnco Again JAN 17–24.
- Gravel Pit Community Hotline (Phone Number). Gravel Hearings 1:00pm. Be Seen Be Heard/Your Voice Counts.
- Help Us Overturn Burnco By-law. Canvassers Petition Meeting. May 17. 7:30pm. Bearspaw–Glendale Community Hall.
- Major Major Gravel Pit Proposed. 30 + Years of Trucks ... Please Come on Nov 29
- Rocky View Needs Better Planning. Vote ... On. Plebiscite Oct. 16.

More “rhetorical” signs incorporated puns, and used graphic means of attracting attention and conveying their message. The shortening of the two aggregate companies names (Burnco and Consolidated) was utilized to create a play on words: We feel Burned and Con’d. This also occurred in the double meaning of words in this sign. Burnco + Consolidated: We feel HARASSED. People + GRAVEL don’t Mix. No still means No. On this sign several of the O’s had been painted red like hunter’s shooting targets. Signs directed towards the MD played upon the monetary issues which had become part of the embroilment between residents of the area and the Municipal District. One sign read: Gravel makes No Sense No Cents MD/JAN 17 1pm. You will make the difference, while another read ROCKY VIEW You hold our \$Future\$. Other signs utilized the visual impact of showing children on them. Such as: 40 + Years = 4 Generations with a picture of a young child on the sign: Please Vote ... Oct. 16. I Can’t. was another example as it displayed a young child with a gravel truck coming towards it.

Residents deemed the proposed gravel pit as a “massive intrusion into a rural residential neighbourhood” and through the presentation of arguments to the Municipal District felt that they had more than adequately demonstrated that Burnco’s application should be denied based upon the risks which this pit would subject residents. When the Municipal District voted in favour of progressing with the process which would allow Burnco to obtain a Development Permit residents attacked the Municipal District for failing to heed the wishes of those people who had elected the Council to represent them. As one resident stated:

One of the other things, prior to the planning hearing, which was a long haul. You know people got up and walked out and went to sleep and flossed their teeth – councilors and shit like that! You know just got up and walked away and went and did something else. You know pretty bad form. Part of the job is that you have to sit up there and listen.

This was reflected in another statement:

Everybody has their cross to bear. A lot of people did. They are cheezed off at council for this reason or that reason. We found that in Bearspaw, Springbank, Bragg Creek, East of the City. Lots of people have complaints. They feel that Council is not listening to the electorate – they have their own agenda

Anger over the manner in which the Municipal District behaved, and more pertinently voted, seemed to supplant the actual risks as the primary focus of Bearspaw residents. Interestingly, Burnco and its employees were rarely the focus of conversation during interviews. It was even conceded by one resident, after events had culminated and settled, that for the most part Burnco and its representatives were not ‘really that bad’. The Municipal District was placed in contrast to Burnco as is illustrated in this statement:

Bearspaw folks thought they were fighting Burnco's heavy industrial intrusion into residential land use areas ... what we were really fighting wears suits and a look of prosperity, appears respectable and honourable, but votes in a callous, unconscionable manner, and justifies its decisions with vague generalities and covers its rear with self-serving legislation

Part of the on-going dialogue between residents, Burnco, and the Municipal District was an attempt by Burnco to portray itself as a 'good neighbour' who like any good neighbour would seek to ensure that the activities which would occur on the land it owned in Bearspaw would be undertaken in a responsible manner – and would not place the residents at risk. There was even an open assertion that aggregate companies had not operated in a manner which belied trust in them. Evident of this are the following statements made by Burnco within the two regional papers.

We realize we cannot operate as we have in the years past ... This is just one of the many new, positive steps gravel operators are taking to make their operations more amenable to their neighbours and the community. We hope these efforts are recognized as proof that we have been listening and have heard the concerns raised (Calgary Rural Times June 13, 1995 Vol. 2, No. 24: 5)

At Burnco, we've been a good neighbour company for over eighty years. We're proud of our contribution to this municipality. We're happy to live and work here. And we enjoy our friendly relationship with local communities.

That's why we've responded to the misgivings over our proposed gravel operation with direct measures that clearly answer every concern.

We've listened. We've learned. And we've come up with new ideas that make this project not only practical – but a development of huge benefit to every Rocky View resident (Rocky View Five Village Weekly Oct. 3, 1995 Vol. 22, No. 1: 40)

Unlike Burnco which tried to demonstrate that although they, and other aggregate companies had not always acted as good neighbours they – like any good neighbour should – had altered their behaviour to meet community expectations in the areas where they operated (though perhaps not as willingly as the above statements would indicate). Burnco attempted to argue that being an Alberta based, family owned company whose members lived in the Calgary area and were members of the community meant that they could be trusted to “get things done” if problems were to arise when the pit was running. Burnco, in conversation with the researcher, also sought to demonstrate that poor government planning led to many of the complaints which existed in relation to gravel pits and gravel trucks, and that they were therefore not directly responsible for these.

The Municipal District, on the other hand, took a more brusque approach towards residents assertions that the MD Councilors were not acting appropriately in supporting Burnco’s application. This approach incorporated accusing the residents of the area of placing economic development and the rural heritage of Rocky View at risk by seeking to supplant the nature of the area with a more urban inflection. There would also be an attempt to show that the Municipal District had acted in a manner which was democratic and took into consideration the concerns of residents. The Reeve openly stated this in a letter to residents of the Municipal District when he commented:

If gravel companies wish to operate near their residential customers, they will have to operate in a safe, clean and quiet manner, sensitive to the quality of life of the neighbours. The residents and council were very concerned about our quality of life and the bylaw was reviewed twice, on a line-by-line basis, to give the residents and the company a chance to make final adjustments to the bylaw. It stresses the importance everyone attaches to our quality of life (Calgary Rural Times Vol. 2, No. 21 May 23, 1995: 4)

Another Councilor, during an private conversation with the researcher, stated that those person who choose to move to the Rocky View had the onus of adjusting to a rural lifestyle and way of thinking. This Councilor stated:

So part of it is teaching, training, education, so that the people who have long lived in the city, and then choose to live in the country understand their rural surrounding; and that they cannot impinge upon our agriculture and our resources – and all those industries that are in rural Alberta. Because this is where they have to be (Interview Conversation)

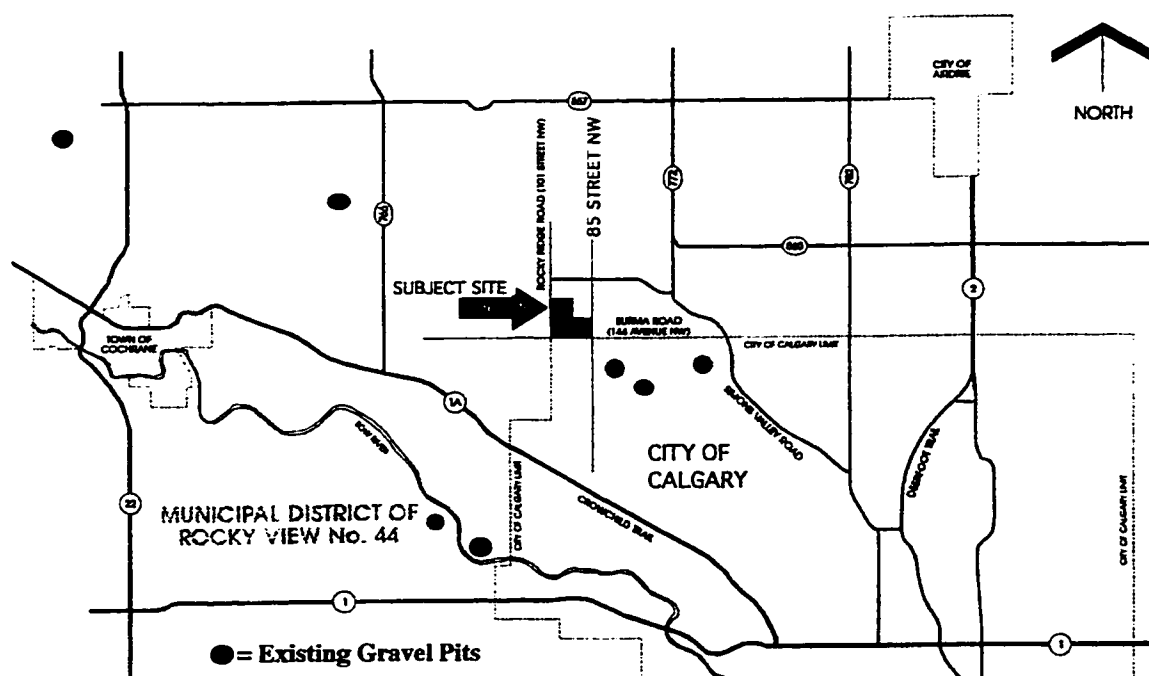
It was expressed that this adaptation had to occur as “rural Alberta cannot make the changes to accommodate urban thinking”. Other Councilors also expressed concern over the implications of ‘allowing’ the residents of Bearspaw to prevent economic activities from occurring in the Municipal District. As one stated “Council has the ability to shut down economic development in the whole region. We have to think of the economic well-being of our children and our grandchildren” (Calgary Rural Times 1992 Vol. 2, No. 4: 8).

The above ‘moral’ assertions made by each of the stakeholders may also be seen to ‘fit’ with each of their interests – to justify the stances which they have taken and demonstrate the uprightness of their decisions and actions which were undertaken during the course of events. The Municipal District sought to demonstrate that they had proceeded in a manner which incorporated the concerns of the residents in Bearspaw and the need for economic development; while both admonishing Burnco and the CCO for their transgressions of propriety. Burnco had to concede that the manner in which they had carried out business activities in the past was not always appropriate but that they had modified their activities to accord with community expectations. Burnco could not afford to chastise either residents or the Municipal District since they could not risk increasing opposition to their intentions by residents and could not anger the Municipal District within whose hands rested approval for their application. Residents of Bearspaw, once they had realized that the majority of the Council was in favour of granting Burnco a Development Permit sought to muster support

from within Rocky View to apply pressure on the Municipal District. They did this by attacking perceived breaches of democratic principles by which government is supposed to operate, and by attacking the placement of economic gains over the health and well-being of individuals. Effectively seeking to argue, in contrast to Burnco and the Municipal District, that these values had precedence over economic development; whereas the Municipal District and Burnco to a lesser degree sought a compromise between the two ethics.

POST DEVELOPMENT NOTE

The final by-law governing the operation of Burnco's gravel extraction facility in Bearspaw was modified extensively from initial drafts. The modifications conform to the concerns of residents within the area and the arguments of the two Councillors who represent residents of Bearspaw. Furthermore, I have been told that all gravel pits within the City of Calgary and surrounding area may have their operation by-laws modified to conform with the operating restrictions placed upon Burnco's Bearspaw pit (recent pressure has been exerted upon the Foothills Municipal District, which borders upon Rocky View, by the MD of Rocky View to alter the operating guidelines of a pit within their jurisdiction to incorporate some of the restrictions and conditions in Burnco's development permit) (Rocky View Five Village Weekly March 17, 1998 Vol. 25, No. 21: 8) (see map below for pits within the Bearspaw and surrounding area)



Map Six: Locations of Existing Gravel Pits within the Bearspaw Region (Burnco Rock Products Ltd. 1994: i) (The Original Map did not contain the location of gravel pits within the region. These have been inserted.)

The gravel pit is allowed to operate from 7am till 6pm Monday to Friday, and for direct sales of products to the public on Saturdays. No operations will be allowed on holidays or Sundays. Hours of crushing will also be curtailed during summer months when residents are most active outdoors. Roadway modifications were required to address safety concerns, and roadside signs put in place stating the maximum weight allowed for vehicles (vehicle weight is an important factor in driving safety as the ability to brake depends upon this, to prevent damage caused to roads when excess weight is places upon them, and to mechanical and structural failures when excess weight is carried), and designating which roads are allowed for hauling gravel – these limited hauling routes to non-local roads unless the gravel was to be utilized within Bearspaw, otherwise gravel trucks were to follow designated routes which circumvented residential areas and roadways not designed for continuous truck traffic.

SUMMATION

The purpose of this thesis was to describe a case study in which risks were the common thread of discourse between several stakeholders. In this case study the residents of a semi-rural region, Bearspaw, sought to demonstrate to the Municipal District of Rocky View that the insertion of a gravel pit into the Bearspaw area would place their lifestyle, physical well-being, and property values at risk. This action, by the residents of Bearspaw, set into motion a train of events which were defined by an 'acceptance' by the other two stakeholders that risks would be created. Essentially they accepted that the terms of discourse between them would be risk. In this sense, like witchcraft, the direction of discourse is implied in the first proposition made by the accuser. Burnco and the Municipal District mainly "responded", and responded in kind, to the assertions and accusations made by residents in Bearspaw.

Each stakeholder, it was seen, depicted the risks along their lines of interest. This involved trying to convince the other stakeholders, primarily the Municipal District, that these risks could or could not be managed or mitigated through various means. This discourse, though, diverged from being a direct expression of their interests to being one of "right and wrong". Of whether each stakeholder was advocating courses of action which were morally upright in accordance with historical circumstances, tenure, property rights, and societal and individual rights. Phrased in moral terms this discourse was a roundabout method of essentially seeking to do the same thing which each stakeholders risk discourse was seeking to do. The case material amply shows that people select and use evidence, in line with their interests and stated goals, and fit it into a framework which emerges as the discourse continues. A discourse in which moral values become predominant. The utilization of moral discourse by each of the stakeholders seemed to represent a second tier of arguments through which they sought to buttress their stance and support their interests. When intertwined with their risk discourse these moral arguments were both justifications

and support for the stances which they had assumed. None of the stakeholders were swayed to the others stance, nor did they come to an agreement over their contending viewpoints. Rather, we can indirectly surmise that the pressure which residents of Bearspaw exerted upon the Municipal District and Burnco led to modifications in the design and operating guidelines from those which Burnco sought to have. The pressure being created not just by the residents assertions that they were being placed at risk and that the Municipal District and Burnco were acting immorally, but by an acceptance and engagement in this discourse with the residents by Burnco and the Municipal District. Why each stakeholder should 'agree' to do so rather than countering with, for example, a jural/legal response is not a component of this case study. It does remain as an interesting question.

This case study can settle no issues, but it does raise some questions about risk discourses. Does risk discourse tend to follow a common template as was evident in this case study? A template based upon an acceptance or agreement that each of the stakeholders involved in a dispute shall mediate their interests through the idiom of risk. Risk discourse is met with risk discourse. Moral discourse with moral discourse. It is a highly elaborate language which occurs in conflict situations and most likely does not correspond to the private sphere. This is a question which should be analysed by future researchers. Does public and private discourse on risk match? This is an important question. If the discourse does not match, as we would expect it not to, it would provide a further basis for contending that risk discourse is a means through which stakeholders attempt to mediate their interests in the public realm by accepting the terms of discourse first presented for response.

Analysts interested in the question of whether risk discourse does follow a common template should look for certain indicators. As already mentioned they should seek to determine whether public discourse matches the private discourse made by each stakeholder involved. This would provide a basis for asserting that each stakeholder had 'agreed' to

risk discourse as a means of communication or mediation. The analyst should also look to see if the language of risk is being utilized by the stakeholders. Although this may seem redundant there is the risk that the researcher defines the issues, or produces answers to questions, by phrasing them in a format which elicits risk discourse. The analyst should also pay particular attention to the pattern of discourse. Seeking to discern which statements are responses and which are triggers. This is particularly important in the first instance when an accusation of being placed at risk occurs. What were the responses to this? Did the stakeholder deny the accusation or produce a response which fit the expected template? If not, did the accused come to 'accept' this discourse once it was recognized that the accusing stakeholder was seeking a public or formal response through prescribed channels? The analyst should also seek to determine at which point in events does risk discourse become embroiled in discourse which relates risk to moral defects; thus helping to establish whether a common template does exist, and the components of this template. It should be kept in mind that the final outcome or decision(s) should not be directly perceived as being a result of this interplay. Too many factors may be present to make any determinant statements; particularly in complex situations where multiple stakeholders are present and events occur over an extended period. At best the researcher can only seek to produce an accurate depiction through which conclusions can be better supported; and obtain discourse from each – or only one – of the stakeholders which can allow us to have a better insight into this social phenomena. The above queries may be used as a means of doing this.

BIBLIOGRAPHY

- Abel, Richard L. "Review Essay: Blaming Victims" American Bar Foundation. Vol. 401, No. 2. 1985. Pg. 401-417.
- Aharoni, Yair The No-Risk Society. Chatham House Publishers, Inc., Chatham: 1981.
- Alberta Association of Municipal Districts and Counties "Municipal Government in Rural Alberta" Government of Alberta: 1996.
- Anderson, Walter Truett Reality Isn't What it Used to Be: Theatrical Politics, Ready-to-Wear Religion, Global Myths, Primitive Chic, and Other Wonders of the Postmodern World. Harper, San Francisco: 1990.
- Ansell, Jake and Frank Wharton (eds.) Risk: Analysis, Assessment and Management. John Wiley & Sons, Chichester: 1992.
- Appadurai, Arjun. "The production of locality" in Fardon, Richard (ed.) Counterworks: Managing the Diversity of Knowledge. Routledge, London. 1995. Pg. 204 - 225.
- Ardener, Edwin. "Witchcraft, Economics, and the Continuity of Belief" in Douglas, Mary (ed.). Witchcraft Confessions and Accusations. Tavistock Publications, London: 1970. Pg. 141-160.
- Arens, W. "The Interpretation of Misfortune in a Polyethnic Community" in Karp, Ivan and Charles S. Bird (eds.). Explorations in African Systems of Thought. Indiana University Press, Bloomington: 1980. Pg. 165-182.
- Baradat, Leon P. Political Ideologies: Their Origins and Impact Prentice Hall, Englewood Cliffs: 1991.
- Bazon, David L. "Risk and Responsibility" Science. Vol. 205, 20 July 1979. Pg. 277-280.
- Bellaby, Paul "To risk or not to risk? Uses and limitations of Mary Douglas on risk-acceptability for understanding health and safety at work and road accidents" in Sociological Review. Vol. 38, No. 3 (August) 1990. Pg. 465-483.
- Bohnan, Paul and Mark Glazer (eds.) High Points in Anthropology. Alfred A. Knopf, New York: 1973.
- Boissevain, Jeremy. "Second Thoughts on Quasi-Groups, Categories and Coalitions." in Man (N.S.) Vol. 6, 1971. Pg. 168-172.
- Boissevain, Jeremy. Friends of Friends: Networks, Manipulators and Coalitions. Basil Blackwell, Oxford. 1974.
- Boon, James A. "America: Fringe Benefits" in Raritan 1983 (Spring): 97-121.
- Bryant, C.R., L.H. Russwurm and A.G. McLellan The city's countryside: Land and its management in the rural-urban fringe. Longman, London. 1982.

- BURNCO Rock Products Ltd. Northwest Gravel Operations: Land Use Redesignation Application. BURNCO Rock Products Ltd. 1994.
- BURNCO Rock Products Ltd. Northwest Gravel Operations: Perimeter Greenbelt. BURNCO Rock Products Ltd. 1995.
- Calgary Rural Times, Bowes Publishers Limited. Cochrane, Alberta.
- Cashdan, Elizabeth (ed) Risk and Uncertainty in Tribal and Peasant Economies. Westview Press, Boulder: 1990.
- Cohen, Anthony P. The Symbolic Construction of Community. Ellis Horwood Limited/Tavistock Publications: London. 1985.
- Cotgrove, Stephen Catastrophe or Cornucopia: The Environment, Politics and the Future. Wiley Press, Chichester: 1982.
- Crawford, J.R. "The Consequences of Allegation" in Marwick, Max (ed.) Witchcraft and Sorcery. Penguin Books, Harmondsworth: 1970.
- Crook, Stephen, Jan Pakulski and Malcolm Waters. Postmodernization: Change in Advanced Society. Sage Publications, London: 1992.
- Dake, Karl "Orienting Dispositions in the Perception of Risk" *Journal of Cross-Cultural Psychology* Vol. 22, No. 1, March 1991, Pg. 61-82.
- Davy, Benjamin "Fairness as Compassion: Towards a Less Unfair Facility Siting Policy." *Risk: Health, Safety & Environment*. Spring 1996. Pg. 99-108.
- Dowie, Jack and Paul Lefrere (eds.) Risk and Chance: Selected Readings. The Open University Press, Milton Keynes: 1980.
- Descombes, Vincent "Philosophy and Anthropology after Structuralism" in *Paragraph* 1991 (14:3) 217-239.
- Douglas, Mary Purity and Danger: An Analysis of the Concepts of Pollution and Taboo. London, ARK. 1966.
- Douglas, Mary Natural Symbols: Explorations in Cosmology. Pantheon Books, New York. 1970.
- Douglas, Mary (editor) Witchcraft Confessions and Accusations Tavistock Publications, London. 1970.
- Douglas, Mary Cultural Bias. Royal Anthropological Institute of Great Britain and Ireland. Occasional Paper no. 35. 1978.
- Douglas, Mary "Passive Voice Theories in Religious Sociology" in *Review of Religious Research*. Vol. 21, No. 1 (Fall) 1979. Pg. 51-61.
- Douglas, Mary and Aaron Wildavsky Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers. University of California Press, Berkeley. 1982.

- Douglas, Mary (Ed.) Essays in the Sociology of Perception. Routledge and Kegan Paul Ltd., London. 1982.
- Douglas, Mary Risk Acceptability According to the Social Sciences. Social Research Perspectives: Occasional Reports on Current Topics. Russell Sage Foundation, New York. 1985.
- Douglas, Mary How Institutions Think. Syracuse University Press, Syracuse. 1986.
- Douglas, Mary "The Background of the Grid Dimension: A Comment" in Sociological Analysis 1989 (50:2) 171–176.
- Douglas, Mary "The body of the world" in International Social Science Journal. Vol. 42, No. 3 (125) (August) 1990. Pg. 395–399.
- Douglas, Mary "Witchcraft and Leprosy: Two Strategies of Exclusion" in Man (N.S.) 1990: 26, 723–736.
- Douglas, Mary "Witch Beliefs in Central Africa" in Africa. 1067, Vol. 37, No. 1: 73–80.
- Douglas, Mary Risk and Blame: Essays in Cultural Theory. Routledge, London. 1992.
- Downey, Gary L. "Ideology and the Clamshell Identity: Organizational Dilemmas in the Anti-Nuclear Power Movement" Social Problems Vol. 33, No. 5. June 1986 Pg. 357–373.
- Draper, Elaine "Risk, Society, and Social Theory" in Contemporary Sociology 1993 (22: 5) 641–644).
- Dunwoody, Sharon "Community Structure and Media Risk Coverage." Risk: Health, Safety & Environment. Summer 1994. Pg. 193–201.
- Dymon, Ute J. "Mapping – The Missing Link in Reducing Risk Under SARA III." in Risk: Health, Safety and Environment. Spring 1994. Pg. 337–349.
- Elliott, Donald E. "Book Reviews: Anthropologizing Environmentalism" The Yale Law Journal Vol. 92 1983. Pg. 888–899.
- Evans-Pritchard, E.E. Witchcraft, Oracles and Magic among the Azande Clarendon Press, Oxford. 1937.
- Fischhoff, Baruch, Sarah Lichtenstein, Paul Slovic, Stephen L. Derby, and Ralph L. Keeney. Acceptable Risk. Cambridge University Press, Cambridge. 1981.
- Fischhoff, Baruch "Acceptable Risk: A Conceptual Proposal." in Risk: Health, Safety and Environment. Winter 1994. Pg. 1–28
- Freudenburg, William R. "Perceived Risk, Real Risk: Social Science and the Art of Probabilistic Risk Assessment" Science. 1985. Vol. 242, Pg. 44–49.
- Gluckman, Max Custom and Conflict in Africa. Barnes and Noble, Inc., New York: 1964.

- Goody, Esther. "Legitimate and Illegitimate Aggression in a West African State" in Douglas, Mary (ed.). Witchcraft Confessions and Accusations. Tavistock Publications, London: 1970. Pg. 207-244.
- Gray, R.F. "Some Structural Aspects of Mbugwe Witchcraft." in Middleton, J. and E.H. Winter (eds.) Witchcraft and Sorcery in East Africa. Routledge and Kegan Paul, London: 1969.
- Greenberg, Michael, Dona Schneider and Jim Parry "Brown Fields, a Regional Incinerator and Resident Perception of Neighborhood Quality." in Risk: Health, Safety and Environment. Summer 1995. Pg. 241-259.
- Gross, Jonathan L. and Steve Rayner Measuring Culture: A Paradigm for the Analysis of Social Organization. Columbia University Press, New York. 1985.
- Gupta, Akhil and James Ferguson "Beyond Culture: Space, Identity, and the Politics of Difference." Cultural Anthropology Pg. 6 - 23.
- Hallen, B. and Sodipo, J.O. Knowledge, Belief and Witchcraft: Analytic Experiments in African Philosophy. Ethnographica, London: 1986.
- Hazard, Geoffrey C. Jr. "The Role of the Legal System in Responses to Public Risk" in Daedalus 1990, 119 (4) Pg.229-234.
- Heritage, John "Accounts in Action" in G Nigel Gilbert and Peter Abell (eds.) Accounts and Action: Surey Conferences on Sociological Theory and Method I. Gower, Aldershot: 1983. Pg. 117-130.
- Hobbes, Leviathan Leviathan Penguin, London: 1988.
- Holdren, John P. "The Risk Assessors" in The Bulletin of the Atomic Scientists" June/July 1983. Pg. 33-38.
- Homans, George C. "Anxiety and Ritual: The Theories of Malinowski and Radcliffe-Brown" in American Anthropologist, XLIII (1941). Pg. 164-172.
- Jackson, M. 1975. "Structure and Event: Witchcraft Confession among the Kuranko." Man 10 (3): 387-403.
- James Valverde A., L. Jr. "The Cognitive Status of Risk: A Response to Thompson." Risk: Issues in Health & Safety. Fall 1991. Pg. 313-339.
- Kemper, Theodore K. "Dimensions of Microinteraction" in American Journal of Sociology. Vol. 96, No. 1 (July) 1990. Pg. 32-68.
- Kling, Joseph M. and Prudence S. Posner (eds) Dilemmas of Activism: Class, Community, and the Politics of Local Mobilization. Temple University Press: Philadelphia. 1990.
- Koshland Jr., Daniel "Immortality and Risk Assesment" Science, Vol. 236, 17 April 1987. Pg. 241

- Kunreuther, Howard, Paul Slovic & Donald MacGregor "Risk Perception and Trust: Challenges for Facility Siting." *Risk: Health, Safety & Environment*. Spring 1996. Pg. 109-118.
- Lanouette, William "Reporting on Risk: Who Decides What's News?" in *Risk: Health, Safety and Environment*. Summer 1994. Pg. 223-232.
- Lash, Scott and Jonathan Friedman (eds.) Modernity & Identity. Blackwell, Oxford: 1992.
- Leach, Edmund Political Systems of Highland Burma: A Study of Kachin Social Structure. Athlone Press, London. 1964.
- Leiss, William and Christina Chociolko. Risk and Responsibility. McGill-Queen's University Press, Montreal: 1994.
- Lienhardt, G. 1951. "Some Notions of Witchcraft among the Dinka." *Africa* 21:303-18.
- Linnerooth-Bayer, Joanne and Ragnar E. Löfstedt "Fairness and Siting: Introduction to a Symposium." *Risk: Health, Safety & Environment*. Spring 1996. Pg. 95-98.
- Lynn, Frances M. "Public Participation in Risk Management Decisions: The Right to Define, the Right to Know, and the Right to Act." *Risk: Issues in Health & Safety*. Spring 1990. Pg. 95-101.
- MacLean, Douglas "Book Review: Culture and Conflicting Rationalities" *The Yale Law Journal* Vol. 92, 1983. Pg. 900-912.
- Mair, Lucy. Witchcraft. McGraw-Hill Book Company, New York: 1969.
- Malinowski, Bronislaw. Argonauts of the Western Pacific. E.P. Dutton & Co., Inc., New York. 1961.
- Marwick, M. "Witchcraft and Sorcery." in Fortes, M. and G. Dieterlen (eds.) African Systems of Thought. Oxford University Press, London: 1965
- Marwick, M. "Witchcraft as a Social Strain-Gauge." In Marwick, Max (ed.) Witchcraft and Sorcery. Penguin Books, Harmondsworth: 1970.
- Marwick, M. "The Social Context of Cewa Witch Beliefs" *Africa*. Vol. 22, No. 2 April, 1952: 120-135; *Africa*. Vol. 22, No. 3 July, 1952: 215-233
- Masson, Jack and Edward C. LeSage Jr. Alberta's Local Governments: Politics and Democracy. University of Alberta Press, Edmonton: 1994.
- Mayer, Adrian C. "The Significance of Quasi-Groups in the Study of Complex Societies" in Banton, Michael (ed.) *A.S.A. Monographs*, Vol. 4 The Social Anthropology of Complex Societies. Tavistock Publications, London. 1966.
- McGarity, Thomas O. "Public Participation in Risk Regulation." *Risk: Issues in Health & Safety*. Spring 1990. Pg. 103-130.

- Final Report of the Marsh & McLennan Study of Risk Management Trends. The Realities of Risk in a Changing World: Opinions of Risk Managers in Large North American Organizations. Marsh & McLennan, 1985.
- Middleton, John and E.H. Winter (eds.) Witchcraft and Sorcery in East Africa. Routledge and Kegan Paul, London: 1969.
- Milofsky, Carl (ed.) Community Organizations: Studies in Resource Mobilization and Exchange. Oxford University Press: New York. 1988.
- Mormon, Micheal "Society in a Grain of Rice" in Talking Culture: Ethnography and Conversation Analysis. University of Pennsylvania Press, Philadelphia: 1988. Pg. 86-100
- Municipal District of Rocky View No. 44 Bearspaw Area Structure Plan: By-Law C-4129-93. Municipal District of Rocky View No. 44. 1994
- Nadel, S.F. "Witchcraft in Four African Societies: An Essay in Comparison." in American Anthropologist Vol. 54, 1952: 18-29.
- Nadel, S.F. "Witchcraft and Anti-Witchcraft in Nupe Society" in Africa Vol. 37, 1952: 423-445.
- Nelkin, Dorothy "Communicating Technological Risk: The Social Construction of Risk Perception" Annual Revue of Public Health Vol. 10, 1989. Pg. 95-113.
- Olive, David "Rush to Judgment" Globe and Mail Report on Business Magazine. The Globe and Mail, Toronto. November 1995. Pg. 19-21.
- Orel, Linda J. "Perceived Risks of EMFs and Landowner Compensation." Risk: Health, Safety & Environment. Winter 1995. Pg. 79-86.
- Packard, Randall M. "Social Change and the History of Misfortune among the Bashu of Eastern Zaire" in Karp, Ivan and Charles S. Bird (eds.). Explorations in African Systems of Thought. Indiana University Press, Bloomington: 1980. Pg. 237-265.
- "Risk Communication: Working With Individuals and Communities to Weigh the Odds." Prevention Report. U.S. Public Health Service. February/March 1995. Pg. 1-5.
- Ramo, Simon. "Regulation of Technological Activities: A New Approach" Science. Vol. 213, 21 August 1981. Pg. 837-842.
- Rayner, Steve "Risk, Uncertainty, and Social Organization" in Contemporary Sociology 1989 (18:1) 6-9.
- Read, Tracy Acres and Empires: The History of the Municipal District of Rocky View No. 44 Tall Taylor Publishing Ltd., Irricana. 1984.
- Rocky View/Five Village Weekly, Tall Taylor Publishing Ltd. Irricana, Alberta.
- Sapolsky, Harvey M. "The Politics of Risk" in Daedalus 1990, 119 (4). Pg. 83-96
- Schnaiberg, Allan "Oppositions" Science, Vol. 255, 20 March 1992. Pg. 1586-1587.

- Short, James F. "Hazards, Risk, and Enterprise: Approaches to Science, Law, and Social Policy" in *Law and Society Review*. Vol. 24, No. 1. 1990. Pg. 179–198.
- Short, James F. Jr. "Trace Substances, Science and Law: Perspectives from the Social Sciences." in *Risk: Health, Safety and Environment*. Fall 1994. Pg. 319–335.
- Slovic, Paul, James H. Flynn and Mark Layman. *Science*. Vol. 254, 13 December 1991. Pg. 1603–1608.
- Slovic, Paul "Perception of Risk" *Science*, Vol. 236, April 17 1987. Pg. 280–285.
- Smith, M.R. and L. Collis (editors) Aggregates: Sand, gravel and crushed rock aggregates for construction purposes (2nd edition). The Geological Society London, London: 1993.
- Spickard, James V. "A Guide to Mary Douglas's Three Versions of Grid/Group Theory" in *Sociological Analysis* 1989 (50:2) 151–170.
- Spickard, James V. "Worldview, Beliefs and Society: Mary Douglas' Contribution to the Study of Human Ideas on Ultimate Reality and Meaning" in *Ultimate Reality and Meaning* 1990 (13:2) 109–121.
- Spradley, James P. The Ethnographic Interview. Holt, Rinehart and Winston, Inc., Fort Worth. 1979.
- Stoffle, Richard et al. "Risk Perception Mapping: Using Ethnography to Define the Locally Affected Population for a Low-level Radioactive Waste Storage Facility in Michigan." *American Anthropologist* Vol. 93 (3) Sept. 1991 Pg. 611–635.
- Teuber, Andreas "Justifying Risk" in *Daedalus* 1990, 119 (4). Pg. 235–254.
- Thomas, Keith "The Relevance of Social Anthropology to the Historical Study of English Witchcraft" in Douglas, Mary (ed.) Witchcraft Confessions and Accusations Tavistock Publications, London. 1970. Pg. 47–79.
- Tichenor, Phillip J., George A. Donohue and Clarice N. Olien Community Conflict and the Press Sage Publications: Beverly Hills. 1980.
- Young, Edward D.K. "Where the daffodils blow: elements of communal imagery in a northern suburb" in Cohen, Anthony P. (ed.) Symbolising boundaries: Identity and diversity in British cultures. Manchester University Press: Manchester. 1986.
- Watt, Michael J. "Space for Everything (A Commentary): *Cultural Anthropology* Pg. 115–129.
- Wheelwright, Jeff "The Air of Ostrava" *Discover* 1996 (May) Vol. 17, No. 5 Pg. 56–69.
- Wildavsky, Aaron and Karl Dake "Theories of Risk Perception: Who Fears What and Why?" *Daedalus* 1990, 119 (4) Pg. 41–60.
- Hunter-Wilson, Monica "Witch Beliefs and Social Structure" *The American Journal of Sociology* January 1951, Vol. 56, No. 4: 307–313

- Wilson, Richard and E.A.C. Crouch "Risk Assessment and Comparisons: An Introduction" *Science*, Vol. 236, 17 April 1987. Pg. 267–270.
- Wisner, James "Modernity and the Quest for Political Community". *Canadian Journal of Political and Social Theory*. Vol. IX, No. 3 (Fall) 1985. Pg. 102–108.
- Wuthnow, Robert, James Davison Hunter, Albert Bergesen, Edith Kurzweil (Eds.) Cultural Analysis: The Work of Peter L. Berger, Mary Douglas, Michel Foucault, and Jürgen Habermas. Routledge and Kegan Paul, Boston. 1984.
- Wyllie, R.W. 1973. "Introspective Witchcraft among the Effutu of Southern Ghana." *Man* 8:74–79.
- Zeckhauser, Richard J. and W. Kip Viscusi. "Risk Within Reason" *Science*. Vol. 248, 4 May 1990. Pg. 59–564.
- Zander, Alvin Effective Social Action by Community Groups. Jossey–Bass Publishers: San Francisco. 1990.

APPENDIX A

Diagrammatic Time Line

October 1989 to September 1991

Boothy Pit Opposition/Dispute

May 1992 to March 1997

Burnswest/Consolidated Opposition/Dispute

January/February 1992

Burnco applies for land redesignation. Residents meet to discuss the implications of this. Shortly after named themselves the CCO.

May 05 1992

Burnco's Application voted against 9/1 by the MD of Rockyview.
hour hearing. 130 residents attend.

March 1993

Consolidated Aggregate applies for a development permit.

April 29, 1993

Residents of Bearspaw do informal poll at electoral stations. 151 persons polled. 99.3% of persons polled vote against gravel pits in the area.

December 14, 1993

MD of Rockyview Councillors meet to discuss the Bearspaw Area Structure Plan and to decide whether resource extraction should be allowed in the area. MD of Rockyview's Planning Department has already 'earmarked' the area for resource extraction.

November 19, 1994

Public Hearings begin into Burnco's and Consolidated's applications for Development Permits.

November 29, 1994

Public Hearing at the MD of Rockyview.
Residents attend. Lasts 8.5 hours.
Decisions on applications delayed until January 17, 1995.

January 1, 1995

Government of Alberta develops new Municipal Government Act. New act gives the electorate the right to petition planning by-laws.

January 17, 1995

Council votes 6/2 in favour of re-zoning land for resource extraction in relation to Burnco's application.

January 24, 1995

Consolidated's application voted against by a 6/3 vote.
MD of Rockyview places restrictions on access to hearings transcripts. Must have court order to access and pay to hear.

February 14, 1995

Reeve offers to resign over allegations of bribery in relation to vote on Burnco's application. Residents obtain court order preventing destruction of Council hearing's transcripts.

February 21, 1995

MD of Rockyview has hearing for third and final reading of the Burnco application. Votes is 5/2 in favour. Two Councillors leave hearing. Quorum is prevented and vote is thus not valid.

February 28, 1995

Residents have raised \$11,000 for a legal challenge to MD's decision. Idea of a petition/plebiscite placed to challenge MD's decision to allow resource extraction zoning.

March 3, 1995

CCO (Concerned Citizens Association) holds Pubnight to raise funds for opposition to gravel pit.

March 7, 1995

MD of Rockyview still not able to reach Quorum on Third reading of Burnco's application. Decision delayed until March 14.

March 14, 1995

MD of Rockyview delays Third reading again until April 11. Mount View Health Unit gives recommendations for safety in relation to the gravel pit's operation.

April 04, 1995

CCO holds Pubnight. 100 persons attend.

April 09, 1995

MD of Rockyview Council is fine-tuning by-law for Burnco's application. Third reading delayed until April 25 or May 02. Indemnity for residents not included in by-law. Strict operating limits placed on gravel extraction operation. No environmental review required.

April 11, 1995

Gravel truck overturns at intersection of Symons Valley Road and Burma Road (144 Avenue). Driver failed to stop at intersection.

April 19, 1995

Gravel Truck Registry created by five resource extraction companies in Calgary. 85% of gravel trucks operated by these companies. Self-policing system. Truck numbers and contact phone number placed on side of trucks.

April 25, 1995

Burnco not satisfied with alterations to development permit. Seeks modifications.

May 09, 1995

Third and Final reading of Burnco By-law approved by 6/2 vote. Burnco required to obtain Development Permit. Residents prepare to initiate legal petition/plebiscite process.

May 16, 1995

CCO places full-page ad in local papers informing residents of the gravel pit.

May 17, 1995

Plebiscite Meeting at the Community Centre to distribute Petitioning packages and organize which areas people would petition. 49 people attend. Television and newsprint media in attendance.

May 25, 1995

Reeve writes letter to local papers defending MD's decision to allow Burnco to apply for a Development Permit.

May 31, 1995

Gravel truck loses axel along Burma Road. No injuries.

June 13, 1995

Consolidated Aggregates manager, Dave Clark, writes to local papers detailing the Central Trucking Registry.

June 24, 1995

Affidavit meeting at the Community Centre to sign petitions and verify that signatures on petitions accurate.

July 04, 1995

Residents present MD of Rocky View with two petitions in regards the the gravel pit dispute. 2,480 and 2,340 signatures on each petition respectively. Noted that 45 petitioners spent roughly 500 hours obtaining signatures over 5 weeks. MD has 30 days to either accept petitions as they stand or to hold a plebiscite. Population of MD placed at 19,888. 8 Residents attend handing over. Television and newsprint media in attendance.

August 03, 1995

MD of Rocky View deems first petition sufficient. Second petition ruled insufficient based on ability to petition such matters.

August 10, 1995

Meeting a local residents house. Noted that a sub-set of the CCO had had a seperate meeting to discuss an indemnity package which Burnco had proposed. 8 people in attendance.

August 15, 1995

MD of Rock View gives first reading to petition and decides to hold the question to plebiscite at the MD election on October 16, 1995. 10 residents attend.

August 25, 1995

Burnco files a court motion to challenge legality of petition. Court date set for September 28, 1995.

September 1, 1995

Municipal Government Act ammended to remove the right to petition planning bylaws.

September 04, 1995

Travelled with Kim Titus and Connie to various gravel pit locations to see how the pits operate and re-claimed pits.

September 28, 1995

Court of Queens Bench. 2pm. Initial preceedings into Burnco's lawsuit against the MD of Rockyview. 4 members of Burnco present, 9 residents.

September 29, 1995

Second day of deliberations. Court of Queen's Bench rules the MD is legally entitled to hold a plebiscite on the petition submitted to it by the CCO. Burnco files for an appeal.

October 3, 1995

Members of the CCO meet at R.H.'s house to paint signs informing residents of the Plebiscite and urging them to vote against the gravel pit. 2 residents present.

October 12, 1995

Court of Appeal upholds Burnco's appeal unanimously. Petition is ruled not legally binding based on the MGA not intending bylaws to be petitionable.

October 18, 1995

CCO meeting at the Glendale/Bearspaw community centre. Approximately 75 residents attend. It is decided that the residents will not carry through with legal action against the MD of Rockyview over misappropriation of the hearing process. Decision is based upon legal and financial considerations that would occur against those residents whose names would be on the legal challenge.

November 21, 1995

Gravel truck crashes along Burma Road.

MD Council votes 5/4 against appealing the Court of Appeals ruling on the petition process to the Supreme Court. Seeks court costs from the CCO for the initial fees incurred in their actions against the MD.

December 12, 1995

Burnswest (formerly Burnco) meets with residents to discuss indemnity package. Residents not satisfied.

January 16, 1996

MD of Rocky View approves Development Permit for Burnswest.

March 25, 1997

Burnswest receives Development Permit to start gravel extraction operation in Bearspaw.

APPENDIX B
Petitioning Material Distributed by the CCO

DO'S AND DON'TS

We have been advised by our solicitors to be very careful from here on in. Since we have filed a legal action we must remain squeaky clean for our court appearance.

Do not mention Burnco by name. Refer to them as the applicant wherever and whenever possible.

DO NOT slander, say or agree to anything derogatory or otherwise in reference to: the MD, Councilors, Burnco or anyone else associated with the redesignation. All ears and eyes will be upon us. This type of thing will definitely work against our cause. We have done a terrific job to date on adhering to these principals. Keep up the good work!!!

Should the person your canvassing do such, try and change the subject. Tell them you really don't wish to comment on such things, try not to allow yourself to be drawn into it. It might be challenging at times.

.....

You will do a great job!!!!

Keep your spirits up.

Remember it will be work.

Network amongst yourselves for support and tips.

Most of all have fun.

POSSIBLE QUESTIONS CANVASSERS WILL BE ASKED

1. Q.....Why should I sign this petition when it doesn't directly affect me?

A.....We feel council sets a dangerous precedent by approving this by-law. It allows for the possibility of new industry, not just gravel extraction, adjacent to existing developments. This by-law needs to be challenged and overturned not only to protect the area and residents it effects, but to protect residents in your district from a similar occurrence. We feel heavy industry is an incompatible land use next to country residential

developments. We feel this approval should be overturned and do not want this to happen to anyone else in the MD of Rocky View.

2. Q.....I don't want to sign this petition go away!

A.....You should thank the individual for their time and excuse yourself. Walk away and DO NOT get into a confrontation with them. There could be people that might be aggravated or hostile, or do not want to be bothered, or get involved.

3. Q.....Why do you think you can win by a plebiscite?

A.....There are no guarantees. However we feel most MD residents would feel the same way, if this or a similar occurrence happened in their district. We feel MD residents are hard working, decent people who have worked very hard for their home and county lifestyle. We feel if it comes to a vote by electors, many voters would vote in favour to overturn the redesignation and vote in favour of a 1/2 mile buffer zone.

4. Q.....Who are you?

A.....We are a group of residents within the MD of Rocky View who believe this redesignation from agricultural land to aggregate extraction is an incompatible land use next to existing residential and farming operations. We have gotten together to try and do everything possible to see that by-law C-4375-94 is overturned and a new by-law of a 1/2 mile buffer zone is enacted to protect all MD residents from similar incidents occurring anywhere within the MD of Rocky View.

5. Q.....What is a plebiscite, how does it work?

A.....A number of eligible electors equal to 10% of the population of the MD must sign each petition for the plebiscite(s) to be initiated. Council then has 30 days to respond to the petition. They can overturn the bylaw and enact the new by-law or they can wait until one year if an election is being held within that year to call a vote on the issue on the petition(s) at election time. They put the question(s) to a vote and if there is a majority of votes in favour of the petition than they have to follow the voters wishes.

6. Q.....What is a buffer zone?

A.....The buffer zone we are requesting is a designated area that will allow no industrial operations to occur within a 1/2 mile of existing residential and new industrial operations. It will not effect existing industrial operations.

7. Q.....What happens to the land if they rescind the by-law?

A.....Then the land will return to it's original designation (Agricultural). It is presently being farmed.

8. Q.....What happens if you lose the plebiscite?

A.....We hope this will not happen. However if it does, there is still the development appeal board along with legal action pending. We think we have a good chance to present our case which has many valid points as to why this redesignation and by-law should never have taken place and why gravel extraction should never be allowed to take place in this location and others similar to it. Many important issues are not covered in this by-law.

9. Q.....How did you get my name and legal description?

A.....This information is available to everyone. It is a matter of public record. It is available from the MD's tax roll.

10. Q.....How much gravel will be mined in this operation and for how many years will it run?

A.....The applicant feels the operation will run for 40 years. However, due (sic) to supply and demand there is no real answer to this. There is not cutoff date in the by-law to state they can only mine for x amount of years. It could go longer and it could be less than 40 years. The amount of gravel to be mined is approximately 20 million metric tons.

11. Q.....How many people live in the area and for how long?

A.....Within 1/2 mile approximately 65 people (1 mile, approximately 125) some homes are as old as 27 years adjacent to the land that has been redesignated. Some residents have lived there for over 20 years. Within 2 miles approximately 300 people with 180 homes under construction in addition to these people.

12. Q.....Will the applicant be able to mine or start their operation during the plebiscite, development appeal or legal action?

A.....Only if the development appeal is lost and a permit is granted.

13. Q.....I thought the residents were getting money from an indemnification agreement?

A.....To date there is no agreement in place. There are still many important issues that can't be agreed upon. The residents it applies to, feel pressure over the whole indemnification process and are resolved to stand together on many issues the applicant doesn't appear to want to address. Health and safety are just two of them. There are many children living next to the proposed site. Two children are asthmatics and live downwind along with two other adult asthmatics. No one can predict the losses or health issues these residents will occur. This issue is not about money, but health safety, dust, noise, traffic etc.

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GRAVEL PIT PETITIONING PROCEDURE

Thank you for offering to assist in this worthy cause. Please follow the procedure outlined below as carefully as possible as the MD may deem the petition to be invalid if the required process is not strictly adhered to.

- Each canvasser will be given a kit containing:

- preprinted name and legal land description petition forms for his/her area for the two issues will be petitioning for
- similar forms without preprinted names/land description
- a map of his/her assigned petition area

- a map of the proposed gravel pit and surrounding residences (to show to residents)

- 20 information sheets (to leave with residents if they so request)

- notification door slips

- a receipt book for donations

- Each person who signs the petition(s) must:

- be a permanent resident of the MD in residence at the location preprinted on the petition form(s)

- be eligible to vote in MD elections, that is, must reside in the MD, must be 18 years of age or older and must be a Canadian citizen.

Please verbally inquire of each person whether they meet the above criteria. If they do not, they are not eligible to sign.

- Ask the petition signer to print the current date at the indicated location in the format (example) “May 15”. Please verify that the date is correct.

- Please sign the petition form(s) as “witness” immediately after each individual signs the petition and in his/her presence.

- Two petitions formats are provided:

- those with preprinted names and locations for your canvassing area (hopefully most signatures will be gathered on these forms)

- those with no preprinted information which are to be used for individuals not found on the preprinted forms (names and legal land descriptions must be PRINTED manually on these forms); these forms are referred to as “supplemental” forms below

- There is for up to two signers for each preprinted name/land description. If there are more than two preprinted names for that location, use the supplemental petition forms for the additional person(s), filling in all required information. Please print legibly.

- If anyone at a residence is not shown on the preprinted forms, use the supplemental forms as above.

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APPENDIX C

VERBATIM VERSION OF NEWSPAPER ADVERTISEMENT BY THE CCO

WE ARE COMING INTO YOUR NEIGHBOURHOOD

(Photo of gravel truck with four smaller sub-set photos at each corner of this photo.

This sub-set photos are of a gravel-truck accident. Four risks: SAFETY, NOISE, HEALTH, DUST are captioned above each sub-set photo)

TO ASK FOR YOUR SUPPORT

We the Concerned Citizens' Organization are seeking your support to have Rocky View by-law C-4375-94 rescinded. This by-law allows for a large scale gravel mining and crushing operation, adjacent to country residential and farming operations.

We will also be presenting a petition for plebiscite for a new by-law to try and prevent future intrusion into your neighbourhood and ours. We believe that a 1/2 mile buffer zone should occur between existing country residential, farms and new industries.

The Concerned Citizens' Organization is a group of MD residents who have joined together in opposition to this redesignation and unnecessary intrusion. On Tuesday, May 9, 1995, Rocky View Council approved third reading for by-law C-4375-94.

REASONS FOR OVERTURNING THE BY-LAW AND REASONS FOR A 1/2 MILE BUFFER ZONE

- The Calgary region has in excess of 30 years supply of gravel from existing pits.
- The pits will provide little or not net economic benefit to the MD.
- If the proposed site was developed as residential, the MD would receive much greater monetary benefit from taxation.
- The MD planning department and Mount View Health Unit both recommended this application be turned down. No support was offered by area residents with great opposition being heard from MD residents via Public hearings, presentations, letters and phone calls.
- Proposed truck routes are inadequate for existing truck traffic. No plans are in place to provide significant upgrades.
- In less than one year 4 gravel truck accidents have occurred in this area.
- We are concerned for the safety of children that travel these truck routes daily on school buses.

- The proposed noise and dust mitigation measures are insufficient, unproven and not part of the by-law. Several people with serious asthma conditions live immediately downwind from the site.
- The proposed site is currently designated agricultural. Council is on record as favouring preservation of agricultural land.
- Similar approvals could be given by Council for almost any location within the MD. This opens the door for industrial operations next to existing residential developments. It could happen to anyone if this precedent is allowed to be set.
- We believe heavy industrial operations are incompatible land uses next to country residential.
- This could conceivable happen to you and this is NOT OKAY with us either.

Thank you for all your help! Mutual support will help keep new industrial operations out of existing backyards.

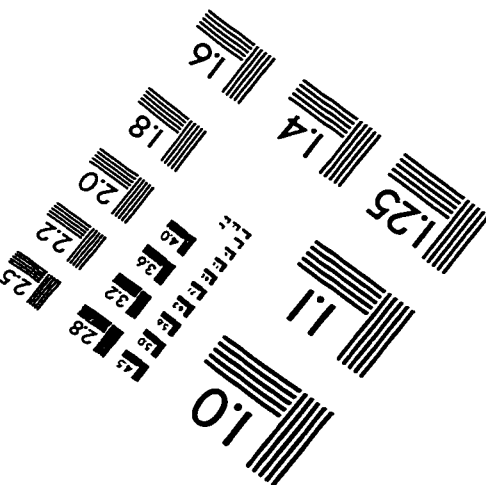
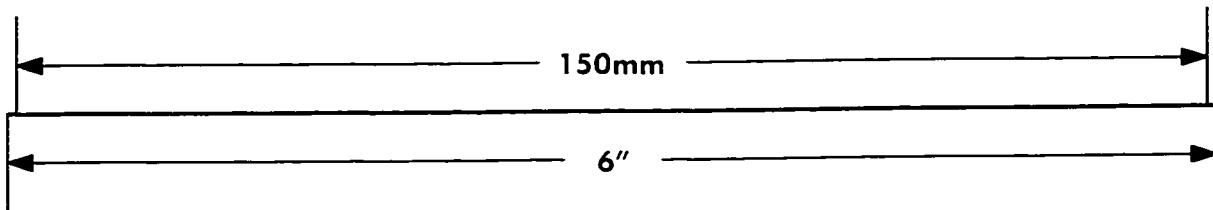
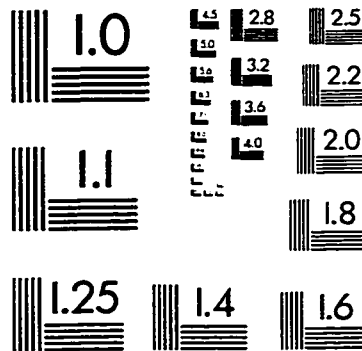
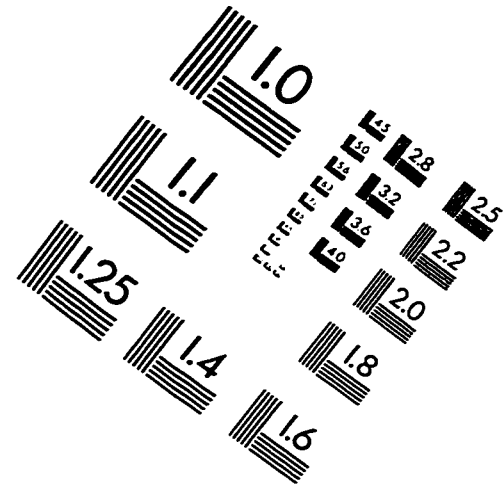
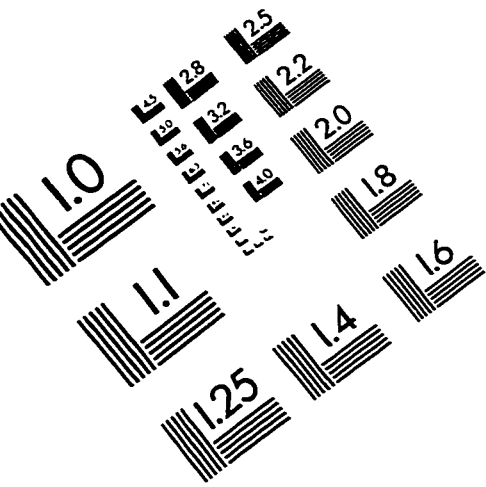
HOW AN MD PLEBISCITE WORKS

A number of eligible electors equal to 10% of the population of the MD must sign each petition for the plebiscites to be initiated. Council then can forego the plebiscite(s) if it votes to comply with the petition requirements, or Council can choose to hold a vote on the question.

HOW CAN MD RESIDENTS HELP

Canvassers will start calling in May. If you are in agreement, please sign the petition(s). Consider a donation to the cause. We are attempting to raise funds for legal fees and expenses for a court challenge. All donations will be held in trust. Any substantive excess of funds will be refunded to contributors. No volunteers or committee members will receive any remuneration.

IMAGE EVALUATION TEST TARGET (QA-3)



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