Social Impact Assessment
of the proposed
Dodds-Roundhill Coal Gasification Project

AREC 450-550 Social Impact Assessment
Class Project Report, April 2009

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EXECUTIVE SUMMARY

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Social Impact Assessment of the proposed Dodds-Roundhill Coal Gasification Project
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Class Project Report

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Background

This project report was completed by 14 graduate and undergraduate students in a social impact assessment course (AREC 450-550) during the Winter Term, January to April, 2009. The overall goal of this project was to learn specific concepts and methods for social impact assessment by undertaking such an assessment for the proposed Dodds-Roundhill Coal Gasification project. This style of teaching is generally known as experiential learning, and this approach is consistent with University of Alberta efforts to place students within community settings, and engage communities around Alberta in research activities of mutual interest.

Sherritt Coal released a public disclosure document for the Dodds-Roundhill project in January 2007, but in 2008 the project was placed on hold and, at the time of this report, there continues to be uncertainty about its future. There was a general sense, however, that a project of this nature (if not this particular project) would be proposed for this coal-rich region at some point in the future. In the 1970s, a coal project was proposed for this region and subsequently cancelled, so this region has a long history of such project proposals. Given this history, a social impact assessment within this context may be beneficial, not only to students as a learning experience, but also to residents of the region as a means of learning more about possible impacts from energy industry mega-projects within agricultural regions.

Project structure

The social impact assessment is composed of four major components: (1) scoping of relevant social indicators, (2) social impacts within the municipalities of Tofield and Ryley, (3) social impacts within the farming region of Beaver County, and (4) a comparative case study of social impacts between the towns of Wabamun and Tofield. Approval from the Research Ethics Board (Faculties of Physical Education and Recreation and Agricultural Life & Environmental Sciences) was granted for this project, and students interviewed a total of 97 individuals during the course of their field work. Although efforts were taken to utilized conventional social science methods, and work within a rigorous research framework, the project has several limitations. First, students engaged in field work for a period of approximately five weeks, and no budget was given for fieldwork. Therefore, time spent in community was limited, and the scope of analysis was therefore constrained by these factors.

Moreover, the primary purpose of the project was to provide students with an experiential learning opportunity. Through this project, students became more familiar with methods in social impact assessment and experimented with diverse approaches. Although the results of this project may be of interest to many readers, in some ways the diversity of methods that are explored in this project may be of particular interest to social impact assessment practitioners in Alberta and elsewhere. Given the limited
scope of social impact assessment methods that are utilized currently within the province of Alberta, this project provides an alternative experience in which to learn and development other ways of engaging with citizens and understanding social impacts from a community perspective.

In the section to follow, key findings are summarized from each of the four project components.

**Scoping**

In the scoping report, students experimented with four distinct methods: (1) informal interviews, (2) in-depth personal interviews, (3) group interviews, and (4) survey research (including internet-based tools). Given that scoping processes are undertaken in the early stages of an impact assessment, information from the community provides insight into major areas of opportunity and concern regarding the proposed project. In this case, interview participants focused on positive aspects such as economic impacts and material well-being, population change, job opportunities for local residents, and changes to the small-town atmosphere.

High school students who participated in the project were less informed about the proposed project but had questions about land ownership, relocation of farms and families, and the feasibility of returning land to pre-project conditions.

Survey results indicated that individuals perceived negative impacts more frequently than positive impacts. Positive impacts included: job availability, employment rates and economic opportunities. Negative impacts were focused on health issues, crime, social tension and aesthetic values.

In addition to these results, the report goes into some detail on the strengths and weaknesses of each research method. Discussion about the limits of internet-based tools was identified by this group in particular.

**Municipalities**

In this report on the municipalities of Tofield and Ryley, students utilized interviews with 34 residents and documented results of their interviews through figures (histograms). Research participants were recruited from small business, public institutions, and members of the general public (residents). Questions were asked about specific social impact domains, listed in Table 1 below. These indicators were identified through a review of published literature on social impact assessment and recent research by a graduate student at the University of Guelph.
Table 1: Social impacts selected for study in the municipalities affected by the proposed Dodds-Roundhill Coal Gasification Project.

<table>
<thead>
<tr>
<th>Category</th>
<th>Impact</th>
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</thead>
<tbody>
<tr>
<td>Health and social wellbeing</td>
<td>Feelings in relation to the project</td>
</tr>
<tr>
<td>Economic impacts and material wellbeing</td>
<td>Property values</td>
</tr>
<tr>
<td>Family and community impacts</td>
<td>Employment and unemployment</td>
</tr>
<tr>
<td></td>
<td>Social tension</td>
</tr>
<tr>
<td></td>
<td>Community identification and connection (sense of belonging, attachment to place)</td>
</tr>
<tr>
<td>Quality of the living environment</td>
<td>Adequacy of physical infrastructure (roads, water, sewer, housing, etc.)</td>
</tr>
<tr>
<td></td>
<td>Adequacy of social infrastructure (basic social services and facilities, such as schools, police, libraries, childcare, welfare services, etc.)</td>
</tr>
</tbody>
</table>

In general, business people and representatives from public institutions had a good understanding of the proposed project, but residents were less informed. Approximately 57% of Tofield residents and 67% of Ryley residents were able to articulate to researchers a clear and accurate description of the proposal.

All of the research participants indicated that the project would have an impact on their community. Common areas of impact included economic growth, population expansion, employment opportunities and the loss of farmland. Concerns about the project focused on loss of farm land, divisions and conflict within the communities regarding the merits of the proposed project, and environmental concern. In general, however, research participants from the municipalities expressed a general approval for the project, with a caveat that deep divisions have developed within the communities – and these divisions are already having a social impact.

Other research methods were also utilized within the report, including an analysis of direct and indirect jobs from the project. Based on published literature, a multiplier of 1.3 was utilized, resulting in a total employment impact during the operation phase of 442 jobs.

The identification of deep divisions within the community is an important finding from the project, and it reflects a reality that social impacts are not just something that takes place once the construction phase begins, but social impacts are an aspect of host communities even at these earliest stages of public discussion and planning.

Also, the particular method that students utilized in this project combines the collection of interview data (semi-structure interviews) with quantitative analysis techniques. In this case, specific segments of text were coded and reported as thematic information. These thematic elements were then reported in histograms. This approach to data collection and analysis contrasts with the following group that also utilized interview research methods, and these contrasting approaches to research illustrate the diversity of ways in which data (in this case interview data) can be analyzed and represented within a project report.

**Beaver County**

In this report on social impacts in Beaver County, students utilized a similar list of social impact domains to the one listed above (Table 1) and conducted interviews with 15 people from the region.
Interviews with research participants revealed that residents were less concerned about physical health impacts and much more concerned about the emotional and mental health impacts of people in the area. These current health impacts were associated with current project uncertainty, deep divisions and conflict in the community, and importantly, a deep sense of impacts that are associated with the local farming culture. Participants identified this concern because of the way in which local culture is so strongly dependent on the local environment and the agricultural landscape in particular.

Another interesting finding from this report is the concern that residents expressed about the role of government in siting and approving large projects of this kind. Reflecting on the strong political and economic strength of the energy industry in this province, residents expressed a lack of trust in the current government’s ability to meet the needs of their local constituents. These concerns were in contrast to the general sense of satisfaction with the project proponents (Sherritt Coal) and their way of working with the public through groups like RHDAPA in particular.

This discussion about government’s role is interesting in part because methods of social impact assessment are often focused on two key actors: industry and community. In this case, government is also an important actor, and one that may require further attention in the context of setting a regulatory context that is understood to be fair and effective.

Another interesting finding from this report is the way in which the proposed project has affected social relations, not only in a negative sense (community conflict) but also in terms of community building and the formation of social capital. The re-emergence and/or creation of groups like RHDAPA and VOCAL (Voice of Community and Land) are evidence of community members working together toward common goals. This work has resulted in a ground-breaking Land Acquisition Policy that has been utilized in other negotiation processes in Alberta.

**Comparative Case Study**

In this report, students focused on a comparative case study approach to social impact assessment. In this method, three communities were selected for comparison: (1) the study community (Tofield), the comparison community (Wabamun), and the control community (Mannville). These communities were studied in comparative context, utilizing data from the Census of Canada, interviews with residents, and media analysis.
As a starting point, students selected five social impact domains: gender distribution, population, income, community stratification, and subdivision of land. These impact areas served to focus data collection activities.

More than the other three groups, this particular group had difficulty in contacting individuals to interview, particularly in the Wabamun area. After numerous efforts to contact individuals and community organizations by telephone, email, and flyers posted on bulletin boards throughout the community, three individuals were identified who worked for the Whitewood-Highvale coal mine. One was a project engineer, one was a member of the land reclamation department, and one was in charge of the resident complaint department. Although the perspectives of these individuals were informed by their employment situation, their comments did provide some important insights. Based on these interviews, positive impacts from the mine were associated with economic opportunity in the region; employment, attracting new people to the community, support for local business, tax revenue for communities, and reclamation of land to productive status.

On the negative side, research participants identified a variety of concerns: loss of farms and farm families, complaints about noise, blasting of mine sites and potential damage to homes in the area, water movement issues, dust, and heavy use of local roads.

Given the challenges this group faced in contacting local residents for interviews, this group also focused on secondary sources of information, particularly the local media. Several stories in local papers
identified a variety of environmental impacts from mining and industrial development in the region – in particular, articles in recent years have focused on water quality issues and problems of mercury contamination in the lake.

Another large component of this comparative case study involved an analysis of information from the Census of Canada, on changes in agricultural activity and social conditions in case study communities over longer time periods. Efforts to conduct this analysis were frustrated, however, by several factors including (1) a 50 year gap between pre-mine impact conditions in Wabamun (1950s) and Tofield (today), and (2) a lack of consistent information from one census period to the next. These constraints resulted in limited insights from the quantitative component of this project.

Given the challenges in conducting this comparative case study, the report makes a series of important observations about how to improve this method of social impact assessment for future research. First, a more recent comparison community, in the last 10 to 20 years would provide more opportunity for comparison of data from the Census of Canada. Second, where socio-economic impact assessments have been completed, baseline information will be available for comparative purposes. This was not the case in Wabamun. Third, more than one comparison community may be appropriate. For instance, it may be possible to explore impacts from Wabuman and Forestburg to learn about potential impacts in Tofield.

These four project reports provide insights in the potential social impacts from the proposed coal gasification project in the Dodd-Roundhill region. In each project, students identified opportunities and challenges in conducting this research. These insights may be useful in the development of monitoring frameworks and long-term evaluation processes with regard to this project. Also, each project utilized a variety of methods for social impact assessment and the learning from these methods may be useful for assessment practitioners as they work with communities to identify social impacts in other locales.