

MINING AND ARCHAEOLOGICAL RESOURCES:
CONFLICTS AND MITIGATION PROCEDURES

Paper Presented

by:

Bjorn O. Simonsen
Provincial Archaeologist
Heritage Conservation Branch
Ministry of Recreation and Conservation
Provincial Government of British Columbia
Victoria, B.C.

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INTRODUCTION

When first contacted about presenting a short paper at the Second Annual Conference on Mine Reclamation, I felt very apprehensive. The key word in the conference title which caused this apprehension was "reclamation". How could I relate heritage resources, or more specifically, archaeological resources, to the concept of reclamation when such resources are in fact non-renewable? An archaeological site, once damaged or destroyed by any land altering activity, such as mining, cannot be replaced or reclaimed.

However, I overcame this problem once the conference organizers pointed out that I did not necessarily have to deal exclusively with reclamation matters but rather, I was asked to specifically "...outline my ideas on problems associated with conflicts between mining and archaeological sites and possible solutions to these conflicts."

HERITAGE RESOURCES

What then can be called a historical or heritage resource? The recently enacted British Columbia Heritage Conservation Act, which is administered by the Heritage Conservation Branch of the Ministry of Recreation and Conservation, defines "heritage" as anything of "... historic, architectural, archaeological, palaeontological or scenic significance ..". "Heritage Site" is further defined as "land of heritage significance." All of these definitions are very broad. For example, an entire coal deposit could be considered a heritage site as it has palaeontological significance. However, such interpretations were clearly not intended and the Act goes on to provide much more specific descriptions concerning the types of

sites which are to be protected or managed through various means.

Archaeological sites, whether located on Crown or Private lands, are fully protected by the Act. Historic sites, on the other hand, may only be protected through a process of "designation", either by Order in Council should the site be one of Provincial significance, or by a Municipal Council if the site is considered only of local significance.

To my knowledge, there has never been an action taken under the powers of the Heritage Conservation Act or its fore-runner the Archaeological and Historic Sites Protection Act, to ensure that mining activity did not damage archaeological sites. However, there has been considerable input by the Provincial Archaeologist's Office into such coal development related proposals as the Northeast coal project, Hat Creek thermal generating facilities, Carbon Creek coal development proposal, Hosmer-Wheeler proposals and so on. All of this involvement has arisen from our participation in general Environmental Impact Assessments that have been carried out, or which are still taking place, with respect to these projects. There was, however, no involvement of my office in the preliminary assessment of large coal extraction projects such as the Kaiser Resources operation in the East Kootenays.

The lack of heritage resource assessments in these projects has meant that there is no possibility of mitigating the loss of such resources, which were undoubtedly present in large numbers prior to mining activity. Since the opportunity to identify and assess these potential resources was either not taken or not made possible, we are not in a position to reclaim this loss by any means.

At this point, it might be fair to ask why heritage resources, and in particular archaeological resources, should be protected, or at least should be considered as a serious and relevant part of any mining development and reclamation process.

All of us, as well as our environment, are the products of the past. By gaining knowledge of this past we can better understand the cultural and non-cultural forces which operate in the present and to gain a perspective of the development of our own civilization. Because this knowledge belongs to all of us, no individual or organization should deprive us of essential segments of this knowledge. Yet, that is what happens when an archaeological site or a historic site is destroyed without an adequate record having been made of the information contained within that site.

The value of an archaeological site is then in the information and material culture remains that are contained within it. This information can only be retrieved by properly conducted archaeological investigations.

MEASURES TO BE TAKEN TO IDENTIFY CONFLICTS

What measures can be taken to ensure that valuable heritage resources are either protected for future study or are subjected to adequate investigations designed to retrieve information and materials of value? The following is a list of actions and procedures that should be applied to all proposed mining developments:

- 1) A thorough systematic inventory of all areas within the proposed development area should be undertaken in order to identify and classify a representative sample of heritage sites.

- 2) These resources should then be evaluated in terms of their significance to our understanding of the area's history or prehistory.
- 3) The project impacts, (both direct and indirect) upon these resources should be identified.
- 4) Basic terms of reference and criteria should be developed to ensure that a meaningful program of mitigation can be carried out before, during, and after the active development phase. Such mitigative measures might include the following options:
 - a) site avoidance by redesigning part of the planned development,
 - b) partial or complete capping or sealing of heritage sites until development of mine resources is completed,
 - c) retrieval and conservation of information and materials contained within sites to be impacted.

COMMENTS AND SOLUTIONS

The options listed above provide the basis for the solutions to the problem of conflict between proposed mine development and heritage resources. There must, of course, be adequate funds allocated so that such options can be exercised; there must be adequate lead time provided; an adequate legislative base to ensure that the various options can be exercised; and a willingness on both the developer's and the resource manager's side to cooperate toward achieving these goals.

In terms of reclamation, there are in fact some means by which the mine developer can provide for a legacy of heritage resources that might be physically destroyed by mining operations. These

are, however, entirely contingent upon the procedures and options outlined above and may include one or more of the following:

- 1) A small museum facility, interpretive or a historic reconstruction centre can be provided in the area of the development to present displays relating to heritage resources and objects identified during the various assessment and mitigation stages.
- 2) Information boards and historic site markers can be erected to identify and interpret heritage values within the development area.
- 3) Published information in the form of pamphlets and books can be produced whose contents and impact would be much the same as an interpretive centre.
- 4) Archaeological and historic investigations in the development area during the assessment and mitigation stages quite often have a positive effect upon local residents. Such projects have often provided the impetus for the formation of historical societies in local areas.
- 5) The long-term potential for increased tourism to areas that have developed heritage resources in ways as described above, is excellent.

Lastly, it should not be forgotten that all or any of the above actions or consequences of a well-planned program of heritage conservation can be of great value to a developer in terms of public relations and the image of the developer in the eyes of government and public.

DISCUSSIONS RELATED TO B.O. SIMONSEN'S PAPER

Time did not permit discussion about this paper.