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Sierra Club of Ontario

Response to

"A Policy for Mineral Aggregate Resource Management in Ontario"

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May 1977

SUBJECT : RESPONSE TO "A POLICY FOR MINERAL AGGREGATE
 RESOURCE MANAGEMENT IN ONTARIO"

INTRODUCTION

Following are the comments of the Sierra Club on the Ontario Mineral Aggregate Working Party report and recommendations on aggregate production in Ontario.

The Sierra Club of Ontario is a conservation group which is concerned about the preservation of our natural environment. It is our belief that comments and concern about and criticism of aggregate production in Ontario fall into two basic points of view; namely, the user/producer point of view and the conserver/preserver point of view. Both terms of reference are broad ones and are not necessarily mutually exclusive since all residents of Ontario depend on aggregate production to maintain our road network and to sustain the standard of living which growth and development have produced. The key to the future, however, lies in the reconciliation of these two divergent points of view into a workable aggregate policy.

The conserver point of view includes environmentalists and others who wish to protect our natural habitat, as well as local residents who wish to protect their homes, their land, their way of life from the impact of aggregate production in their community. In the past and present, the user/producer segment

have pursued a "least cost" policy which has not only produced inexpensive aggregate for use in Central Ontario but also has produced tremendous costs to the environment and to local residents in terms of noise, pollution, truck traffic, abandoned and unrehabilitated pits and quarries.

Reconciliation of the two points of view, the user and the preserver, is not going to be without cost to both sides. Ontario will continue to need aggregate and the source will continue to be our natural environment. However, it is the Sierra Club's belief that the "least cost" approach should apply to the environment and not to the producer/user faction. If aggregate is required it should be paid for, but the price should not be undue hardship to local residents and damage to the environment.

The Sierra Club commends the Aggregate Working Party on their examination and evaluation of the problems encompassing aggregate production in Ontario. We appreciate their conclusions that local involvement is essential in the planning/approval process, that proper planning is imperative for the future, and their admission that there are few examples of progressive rehabilitation in Ontario to-day.

However, we believe that many of the solutions and recommendations offered continue to support the user/producer segment at the expense of the conserver/preserver. Environmental concerns are acknowledged; however, the over-

riding emphasis of the report is still directed towards supporting an increasing demand for aggregate at the least possible cost to the producer/user.

The Sierra Club challenges the Ministry of Natural Resources to answer the following questions :

1. Is demand for aggregate really increasing?
2. Will the organization set up by the Working Party be a workable one?
3. Will local involvement in the decision-making process materialize or will the Aggregate Advisory Committee merely be token representation?
4. Is the role of the Province in the decision-making process a flexible one or will decisions passed down by the Province be arbitrary ones based on their own estimates of supply and demand for aggregate in the Province?
5. Can alternate methods of transportation be investigated using conservation of fuel and protection to the environment as the guidelines rather than least cost to the producer?

6. Are conservation of natural resources and the potential for development of substitutes for aggregate not as important as using up our existing resource base?
7. Are the rehabilitative measures an adequate incentive to ensure that rehabilitation takes place?

We further challenge the Ministry of Natural Resources to look at aggregate production outside of their own frame of reference. The Natural Resource Staff have the expertise, knowledge and experience to assess aggregate from the producer/user point of view. However, the Sierra Club believes that the Ministry of the Environment can and should have a role to play in the general planning, site planning and rehabilitative and conservation aspects of aggregate production. We feel the interaction between the two ministries, Natural Resources and Environment could provide better balance and a better reconciliation of the user/producer and the conserver/preserver priorities for the future.

In its report, the Working Party still shows signs of what the Sierra Club interprets as pro industry bias. It states, for example:

"IF PUBLIC PERCEPTIONS CAN BE CHANGED TO FIND THE INDUSTRY ACCEPTABLE, THE AVAILABLE RESOURCES COULD EXPAND SIGNIFICANTLY"

It is the industry that has destroyed valuable land; it is the industry that has kept many pits and quarries unrehabilitated; it is the industry that has followed the letter but certainly not the spirit of the existing legislation, and it is the industry through its trucking that has caused noise pollution, dust pollution and damage to public roads. Yet, the Working Party has asked the public to change.

The Ministry of Natural Resources has, for so many years, worked very closely with industry and consequently the Ministry and Industry see many things the same way. In this context, the Sierra Club believes that it is unlikely that the Ministry can "change its spots" and strongly support the needs and views of aggrieved communities and protect the environment.

We believe that the Ministry of the Environment should more objectively carry out the inspection of industry audit function.

COMMENTS ON SPECIFIC ISSUES

Following is a more detailed examination of the issues which the Sierra Club believes are key to the establishment of a fair, workable, responsible and environmentally sound policy on aggregate resource management in Ontario.

Many of the policy directives suggested by the Working Party Report represent a positive step toward constructive management for the future. The Sierra Club welcomes these directives. For the sake of brevity, in what follows here, we have concentrated our comments on those other areas which we feel impede the progress toward productive and environmentally sound resource management.

Following our discussion of these key issues is a summary of the Sierra Club recommendations for Aggregate Resource Management Policy.

1. SUPPLY AND DEMAND

Chapter 1 of the Working Party Report begins with the statement, "In Ontario we are faced with a rising demand for sand, gravel and stone." The Sierra Club disputes this statement and would like to point out that there are both quantitative and qualitative indications that the reverse is occurring, that, in fact, aggregate demand is declining.

Itemized below are estimates of aggregate (sand, gravel and stone) production in Ontario for selected years as reported by Statistics Canada :

<u>Year</u>	<u>Production (tons) (000,000)</u>	<u>% Increase (Decrease)</u>
1965	113.2	
1966	119.8	5.8
1967	120.5	0.6
1968	112.7	(6.4)
1969	109.7	(2.7)
1970	110.6	0.8
1971	105.9	(4.2)
1972	107.5	1.5
1973	116.1	8.0
1974	114.2	(1.6)
1975	107.2	(6.1)
1976	104.6	(2.4)

Not only has demand declined over the past two years, but also, it has significantly declined by 13.2% from the high demand years of 1966-67.

Moreover, besides the factual evidence, there are other indications that the demand for aggregate is declining :

- the public and the government are questioning the proliferation of highways, expressways and other road projects and are looking more closely at public transit.
- the public is demanding more green space parks and natural, unpaved recreational areas within the community.
- the increase in the density of housing and in the use of multiple unit dwellings will reduce the need for access roads between dwellings.

Based on this evidence, we have reached the following conclusions :

- The conclusions reached by the Proctor and Redern Report are invalid because future aggregate demand cannot be expressed as a simple function of gross provincial product. The Ontario GPP has more than tripled since 1966; yet, aggregate production has declined by 13.2%.

- . The Working Party estimate of future aggregate demand at 75% of the Proctor and Redfern estimate is probably too high.

- . More accurate methods of forecasting aggregate demand must be developed immediately.

- . Forecasts should be developed after consultation with major user ministries (i. e. Ministry of Transportation and Communication).

2. PROVINCIAL ORGANIZATION AND LICENCING FEE STRUCTURE

The Sierra Club viewed with interest the recommendation of the Working Party "that the Ministry of Natural Resources be provided with sufficient staff and funding to effectively, consistently and credibly enforce the new Act, that is 63 staff dedicated solely to the enforcement of the Act. (#49). It also noted the proposal outlined in Table 9 of the Working Party Report for the generation of revenue through a new licencing fee structure.

The Sierra Club does not dispute the need for adequate planning and management of aggregate resources and it welcomes the rather tardy realization of the need for adequate inspection and regulation techniques for pits and quarries in the Province. Moreover, it firmly believes that the revenues generated by the new licencing fee structure should pay for the costs incurred by the new organizations involved in regulating the industry.

The Working Party estimate annual revenues of \$3.0 million to be generated by their licencing fee structure and to be distributed as follows :

- : 20% to regional government (\$600,000)
- : 50% to municipality (\$1,500,000)
- : 20% to the province (\$600,000)
- : 10% to Provincial Rehabilitation Fund (\$300,000)

for abandoned pits and quarries.

These Working Party proposals raise certain questions :

1. The cost of recommendation #49 is estimated to be \$1.5 million. The Provincial share of revenues from licencing fees, however, is only \$600,000, an amount which will only pay for the inadequate level of staff which exists to-day. Where does the Province intend raising the remaining \$900,000 required for staffing purposes?

2. The Working Party estimates there are 28,500 acres of disturbed land in the Central, Eastern and Southwestern Regions of this Province, a high proportion of which represents abandoned pits and quarries. They have also recommended the formation of a Provincial Rehabilitation Fund with annual revenues of \$300,000 to be generated from licencing fees. Estimates of the cost/acre for rehabilitation range from a mean of \$950/acre (Working Party estimate) to a high of \$4,000/acre (Foundation for Aggregate Studies). Under the most optimistic of these cost estimates it will take over six decades to rehabilitate existing disturbed land. See below :

Cost/acre for rehabilitation	\$ 1,000	\$ 2,000	\$ 4,000
Number of acres (estimated at 70% of disturbed land).	20,000	20,000	20,000
Total rehabilitation cost	\$20 mill.	\$40 mill.	\$80 mill.
(Provincial Rehabilitation (Fund Revenue	\$300,000	\$300,000	\$300,000
(Number of years required (for rehabilitation	67	133	267

3. Unfortunately, the Working Party report does not detail the various functions of the 63 staff members who will be called upon to administer the New Aggregate Resource Management Act. It is interesting to note, however, the significant staff buildup that results as we move from considering the present staff situation of 22 people to the utopian option of 63 people presented in Table 8.

The suggested complement of inspectors allows each inspector to be responsible for approximately 100 licenced pits and quarries.

Assuming that each pit will be visited 3 times per year, this allows for 6 pit visits per week. We feel that this is a workable range of responsibility for each inspector to undertake.

Less obvious, however, are the functions of the 25 Field Staff Members whose responsibilities are to coordinate and supervise the functions of 23 inspectors. We concede that there is much catch-up work to be accomplished and significant provincial initiative required to plan for the future; however, if the additional 5 Head Office Engineers are also to be gainfully employed, we can only conclude that the Ministry of Natural Resources has created a very top-heavy organizational structure.

3. LOCAL VS PROVINCIAL INVOLVEMENT

The decision-making process as it relates to planning for the future, approving licences for new pits and quarries, and regulating the actions of the aggregate industry is one of the thorniest and most emotional issues involved in establishing aggregate policy. The Sierra Club accepts the need for provincial planning for the future, it accepts the rationale that greater levels of expertise are available to formulate sound policy decisions at the regional level, and it appreciates the Working Party's efforts to simplify and streamline the approval process for licencing new pits and quarries. However, we recognize the frustrations of municipalities who are forced to accept the provincial decision to have pits and quarries in their backyards and whose only control over the situation is regulating an industry who has not yet adopted a good neighbour policy.

The Aggregate Advisory Committee is the key to local involvement in the decision-making process; yet, the Sierra Club is concerned that where local expertise is not available, this Committee might become a mere rubber stamp. Moreover, in regions where regional council does not include aggregate in their official plans, the Ministry of Natural Resources becomes the decision maker as well as the implementor, with little or no local involvement.

The Provincial role is by far the dominant one; local involvement is very much after-the-fact. The Provincial initiatives, conducted through the Ministry of Natural Resources, include the following :

- . establishing future Provincial demand
- . identifying and establishing mineral aggregate resource areas by region for possible future extraction to meet future demand
- . establishing production targets by region
- . power to recommend approval of official plans
- . power to appeal decisions made by Regional or County Council.

Local involvement, therefore, is generated only by agreement with Provincial (MNR) directives. Where regions disagree with these directives, they risk having the decisions imposed upon them.

The Sierra Club believes that the position and interests of the environment and local community would be supported by the Ministry of The Environment. We feel, therefore, that an active role should be played by the Ministry of the Environment in the decision-making process, and that this Ministry should work in close harmony with Natural Resources in setting goals, regulating standards and protecting both the environment and the local residents from a sometimes insensitive industry.

Specific areas for Ministry of the Environment involvement include :

- . providing input and advice to the regions relating to designation of aggregate in official plans, and ensuring that parks and sensitive natural areas will be protected

- . providing advice to regional councils on the acceptability of site plans

- . managing the appeal process through the Environmental Assessment Board (with new technical members added to aid in handling pit and quarry cases)

- . controlling the inspection of pits and quarries for conformity to site plans and for evidence of progressive rehabilitation. The Ministry of Natural Resources establishes the parameters around which pits and quarries operate; therefore, we believe that it is appropriate that the Ministry of the Environment audit industry performance.

4. CONSERVATION

Perhaps because it is not the specific domain of the Ministry of Natural Resources, the subject of conservation of aggregates has not assumed a position of any importance in the Working Party's Report. Rather, the need to provide more aggregate as inexpensively as possible has formed the backbone of this report. The Working Party, therefore, appears to be dedicated to using up our natural resources rather than demonstrating any concern for preserving these resources.

As a result, alternative sources of supply such as substitute materials or reprocessed materials have been written off by the report because of cost considerations rather than being assessed in terms of their other merits.

Moreover, besides a passing recommendation to investigate more efficient uses of aggregate, the Working Party Report successfully avoided coping with such positive steps toward conservation as :

- . economy of use
- . recycling
- . use of extenders
- . re-evaluation of construction standards.

We do acknowledge, however, that the Working Party has recognized the potential benefits to be derived from underground mining and we support their recommendation to pursue this technique as an additional means of obtaining aggregate for Ontario. (#14).

5. TRANSPORTATION OF AGGREGATE

In a previous submission to the Ministry of Natural Resources, the Sierra Club voiced their concerns over the distribution of aggregate from source to user. Our position to-day remains the same; namely, that trucking operations associated with aggregate production remain one of the most troublesome and negative aspects of the industry as a whole. The major problems are :

- . the noise, dust, air pollution, heavy traffic patterns and road damage faced by the local communities on a daily basis
- . the high cost for the future in terms of energy consumption
- . road hazards to other motorists.

The Working Party Report has given brief consideration to the need to assess alternative methods of hauling aggregate in the future; however, again, the rule-of-thumb to be used in judging these alternatives will be the "least cost" approach.

The Sierra Club strongly believes that rail haul of aggregate deserves not only a thorough but also a positive evaluation especially in view of the future aggregate transportation requirements from Northern Ontario and

Grey County. We urge that the costing process look beyond the dollars and cents considerations and take into account the cost to the community, the cost to the environment and the cost in terms of energy consumption.

6. REHABILITATION

The Working Party Report has defined rehabilitation as :

1. bringing land back to the level of productivity before the extraction started, and
2. bringing in a useful form harmonious with the surrounding land use, or
3. suitable to some other use as specified in the site plan and agreed to by the local council.

We believe that the procedures outlined by the Working Party are workable; however, the success of these measures depends on several factors :

1. the willingness and the ability of the producers to conform to the guidelines
2. proper evaluation of site plans
3. strict inspection of sites for adherence to site plans and for evidence of progressive rehabilitation according to the site plan
4. immediate levying of fines for any and all infractions.

"Seeing is believing" and proper rehabilitation of the site and improvements in the appearance of the surrounding areas could do much to change the public's perception of the aggregate industry.

The Sierra Club would, however, like to offer two comments :

1. We believe that the rehabilitation process will be strengthened by participation by the Ministry of the Environment, in the site planning and the site inspection process. We believe that the combination of the expertise of the Ministry of Natural Resources in the extraction process and the knowledge of the Ministry of the Environment in rehabilitating land would better ensure successful rehabilitation.
2. We are of the opinion that the Working Party estimate of the cost of rehabilitation is too low. The Working Party estimates that the cost of rehabilitation to-day ranges from \$300 - 1,600 per acre; however, in view of the fact that less than 10% of all areas excavated have been rehabilitated since 1971 and that the quality of this rehabilitation is in some instances below standard, we do not believe that this forms an adequate base on which to judge the true cost of rehabilitation. The Foundation for Aggregate Studies cites studies which have shown that costs will range upwards from a minimum of \$2,000/acre.

To be effective, the security deposit must be based on a realistic cost of rehabilitation.

SIERRA CLUB RECOMMENDATIONS

The Sierra Club of Ontario submits the following recommendations :

1. More accurate methods of forecasting aggregate demand should be developed immediately by the Ministry of Natural Resources in consultation with other ministries.
2. The revenues generated by the new licencing fee structure should pay for the costs incurred in regulating the industry.
3. Rehabilitation of most abandoned pits and quarries should be completed within the next 20 years. Therefore, the Provincial Rehabilitation Fund revenue must increase substantially over the current projection of \$300,000/annum.
4. The Ministry of Natural Resources should re-examine the need for the 63 staff members proposed in option #3.
5. The Ministry of the Environment should play an active role in establishing official plans and site plans, managing the appeal process and carrying out the inspection of pits and quarries.
6. Recommendation #18 calling for the establishment of an Aggregate Resources Board should be rejected.

7. New technical members should be added to the Environmental Assessment Board to hear appeals or objections under the new Aggregate Resource Management Act.

8. The Working Party proposal does not appear to allow sufficient involvement at the municipal level in the decision-making process. The Sierra Club is concerned that the proposed approach is too arbitrary to help create the necessary atmosphere of co-operation needed to reconcile the user/producer and conserver/preserver points of view.

9. Research studies should be undertaken jointly by the Ministries of Natural Resources, the Environment and Transportation to evaluate construction standards and road building specifications and, thereby, to assess means of reducing the use of aggregate in such projects.

10. Studies should be undertaken to assess ways to implement the use of aggregate substitutes such as extenders, garbage and other waste by-products.

11. Bulk transport of aggregate should be encouraged and feasibility studies should be undertaken into the increased use of rail and water transport. We further suggest that benefits to the community and

to the environment be given heavy consideration and that any decision or recommendation not be based on economics alone.

12. An immediate study should be undertaken jointly by the Ministries of Natural Resources and the Environment to establish costs/acre of rehabilitation.
13. The security deposit should be sizeable enough to ensure that rehabilitation is carried out. The Sierra Club suggests an amount per ton of aggregate which will generate double the average amount required to rehabilitate an average acre of pit or quarry.
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