Aggregate Resources Task Force

Final Report to the Minnesota Legislature

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EXECUTIVE SUMMARY

Aggregate resources are critical to contemporary society. Collectively, we as citizens and government use aggregate resources in virtually every element of our built environment, whether for roads and bridges of the transportation infrastructure or for private development. Literally, aggregate resources are the building blocks of our modern standard of living. Today, Minnesota's strong economy and growing population are driving increased demand for aggregate resources. Statewide, the annual demand is over 50 million tons per year, which is an increase of about 50 percent since the early 1980s. During the same period within the Twin Cities metropolitan area, the demand has doubled to over 30 million tons per year, far outstripping projections of fifteen years ago. The current statewide demand translates to about 10.5 tons of aggregates consumed per person each year. This demand is the equivalent of mining an area of two square miles to a depth of 25 feet each year, or one ten-ton truck load per citizen of the state each year.

With demand increasing, the supply and demand balance is critical. A dilemma is drawing near because aggregate resources are a finite natural resource and locally available reserves are dwindling in many areas of the state. Regional trade centers and the metropolitan areas are witnessing the depletion of resources at a rapid rate, covered by urban and suburban development, precluded from development by local planning and zoning, or opposed by residents objecting to mining and the increased truck traffic needed to deliver commodities to the marketplace. Mine operators supplying the Seven County Metropolitan Area, have permitted reserves estimated to last only about thirteen years based on the current demand. The critical issues for the state are to maintain local availability of construction aggregates at reasonable costs; to protect these resources for future use; to provide consistent environmental guidelines for local permitting of aggregate mining; and to deliver resources to the market without undue impact to the state's citizenry.

The Aggregate Resources Task Force, composed of twelve legislators and citizens, has examined these issues for the past fifteen months. After a series of hearings, field trips, public meetings, and considerable deliberations, the Task Force is recommending fourteen actions spanning the range of its discussions. If implemented, the recommendations will provide a broad framework for the management of aggregate resources throughout the state, helping to ensure the continued availability of these resources for future use at reasonable costs while maintaining existing environmental safeguards related to mining.

The six key areas of the recommendations provide:

- Technical assistance and resources to assist local government in managing aggregate resources under their jurisdiction and providing for consistency across jurisdictions;
- Means to identify and protect aggregate resources for future use;

- Compensation for local governments that host mining operations, including provisions for increasing reclamation of mined properties;
- Recommendations for expanded use of recycled materials;
- Recommendations supporting continued use of multi-modal transportation for delivering construction aggregates from their point of origin to the marketplace; and
- Education of government and the public, highlighting the detrimental consequences should conservation of aggregate resources be ignored.

The Task Force concluded its deliberations recognizing that construction aggregates are fundamental to the public good. "Should we as a society continue to ignore the need for aggregate resources without regard to future availability and overlook the urgency of the current situation, our oversight will have a serious impact on the growth and economic vitality of the state."

The specific recommendations are as follows:

1. Best Management Practices

The Aggregate Resources Task Force moves that Best Management Practices (BMPs) for aggregate mining be developed. Development of the BMPs will be coordinated by the Department of Natural Resources, Division of Lands and Minerals with input from other state agencies, local governments, environmental groups, the aggregate industry and other interested parties. Compliance with the BMPs is voluntary.

2. Minimum Reclamation Standards

The Aggregate Resources Task Force moves that minimum reclamation standards be developed for aggregate mining. Development of the standards will be coordinated by the Department of Natural Resources, Division of Lands and Minerals with input from other state agencies, local governments, environmental groups, the aggregate industry, and other interested parties. The minimum standards will be in effect statewide and will be administered by counties or cities.

3. Mine Plans

The Aggregate Resources Task Force moves that a mining plan be filed in the county where the operation is located for all active aggregate mining operations which currently exceed 10 acres in size and for all future aggregate mining operations which are projected to exceed 10 acres in size over the life of the mine. Each mine plan will describe all aspects of mining including interim and final reclamation. Mine plans will be submitted on a standardized mine plan form. Development of the form will be coordinated by the Department of Natural Resources, Division of Lands and Minerals with input from other state agencies, local government, environmental groups, the aggregate industry and other interested parties. Mine plans must be filed at the time of permit application and will be available for review by the public.

In addition, for any new proposal that will exceed 10 acres in size, the Department of Natural Resources, Division of Lands and Minerals will conduct a technical review of the mine plan. The Department of Natural Resources, Division of Lands and Minerals will prepare a report for the local permitting authority containing the findings of the technical review. The report will also indicate the applicable state and federal standards relating to, but not limited to, dust, noise, air, and water permits and the status of any application for those permits. Fees to cover the cost of the technical review will be assessed to the project proposer.

The Department of Natural Resources, Division of Lands and Minerals will prepare a guide containing: 1) the mine plan form, 2) best management practices for aggregate mining, 3) recommended minimum statewide reclamation standards, and 4) a list of state and federal standards related to dust, noise, air, and water which are applicable to aggregate mining.

4. Mining Permits

The Aggregate Resources Task Force moves that counties, townships, and municipalities consider adopting three levels of aggregate mining permits to accommodate the size and range of aggregate operations and deposits. Permit fees could be imposed by permitting authorities.

Level 1 Permit: This is an expedited permit to meet the needs of short-term road construction projects. It applies to operations that **will not exceed 10 acres** of excavated area to a mean depth of 10 feet and will be active for **one operating season**. The proposed mine plan would be submitted on a standard mine plan form and reviewed by the local permitting authorities. Compliance with minimum reclamation standards is expected. Permit turnaround time is **20 calendar days** once a completed application has been submitted.

Level 2 Permit: This permit applies to operations that **will <u>not</u> exceed 10 acres** of excavated area to a mean depth of 10 feet over the life of the operation and will be active for **more than one operating season**. The proposed mine plan would be submitted on a standard mine plan form and reviewed by the local permitting authorities. Compliance with minimum reclamation standards is expected. Permit turnaround time is **60 calendar days** once a completed application has been submitted.

Level 3 Permit: This permit applies to operations that **will exceed 10 acres** of excavated area to a mean depth of 10 feet over the life of the operation. The proposed mine plan would be submitted on a standard mine plan form and reviewed by the local permitting authorities. In addition, the proposed mining plan would undergo a **technical review** by the Department of Natural Resources, Division of Lands and Minerals. Compliance with minimum

reclamation standards is expected. Permit turnaround time is **120 calendar days** once a completed application has been submitted.

5. Native Prairie Conservation

The Aggregate Resources Task Force moves that when a native prairie habitat larger than 5 acres will be lost as a result of an aggregate mining operation, all opportunities to avoid the loss should be considered. Legislation should be written to prevent native prairie from being destroyed (for example, by spraying) while an environmental review process is under way. A funding source for native prairie conservation incentives should be established. A special fee should be imposed upon mining operators that destroy native prairie as a result of mining. The fees would support a fund used to acquire other native prairie parcels.

6. Aggregate Planning and Protection

The Aggregate Resources Task Force moves that Minnesota Statutes, section 84.94, be amended to require that all counties, cities, and towns that undertake comprehensive planning be required to address issues relating to aggregate resources. Issues to be addressed in comprehensive planning include: regional need for aggregate resources, inventory of existing and potential aggregate mining areas, environmental concerns, conflicting land uses, mining operations, permitting standards and process, and reclamation. This requirement should also be included in Minnesota Statutes, Chapter 394 and other applicable Minnesota Statutes pertaining to comprehensive planning.

7. Registration of Commercial Aggregate Deposits

The Aggregate Resources Task Force moves that Minnesota Statutes, section 84.94, be amended to provide for the registration of land that contains commercial aggregate deposits by the filing of a verified statement that a commercial aggregate deposit exists on the land. The purpose of registration is to encourage the identification and preservation of commercial aggregate deposits.

Land containing commercial aggregate deposits may be registered if two criteria are met. First, a registered professional geologist, engineer, or soil scientist must delineate the deposit and certify that it is a commercial deposit. Second, if the land is zoned, the existing zoning must allow mining as a permitted use or as a conditional use. A notice of intent to register must be submitted to the local zoning authority by the landowner at least 120 days in advance of registration. If the two criteria are not met, the zoning authority may deny the proposed registration. The land that contains a commercial aggregate deposit may be registered by the landowner by the filing for record in the county recorder's office or, if registered land, in the registrar of titles office in the county where the land is located, of a verified statement that the land contains a commercial aggregate deposit. Copies of registrations are to be sent to the Department of Natural Resources, Division of Lands and Minerals where they will be kept on file. Registration lasts for a period of ten years and may be automatically renewed for an

additional ten year period. During the registration period, zoning cannot be changed to prohibit mining of registered land. For landowners who register land, the property tax should be that of the lowest agricultural rate in the county.

8. Aggregate Resource Mapping

The Aggregate Resources Task Force moves that aggregate resource mapping be expedited to complete the mapping in all Minnesota counties no later than the end of fiscal year 2006. The Department of Natural Resources, Division of Lands and Minerals will be the lead agency. The work will be performed by the Department of Natural Resources, Division of Lands and Minerals, by the Minnesota Geological Survey, and by private contractors. Mapping priorities, to be determined in time for the 2000 legislative session, will be counties that are rapidly urbanizing and contain regional centers. Mapping products will include the Department of Transportation data electronically linked to map displays for geographic information system use by local government. The maximum funding is set at \$8 million and is recommended to be a special appropriation from the general fund to the Department of Natural Resources, Division of Lands and Minerals in addition to their base budget.

9. Leasing

The Aggregate Resources Task Force moves that the Department of Transportation continue its policy of leasing and purchasing aggregate reserves.

10. Compensating Host Communities and Increasing Reclamation–Amendments to the Aggregate Material Tax

The Aggregate Resources Task Force moves that the Aggregate Material Tax (Minnesota Statutes, section 298.75) be revised to:

- 1) Include a procedure to allow any county board to obtain authority for administering the Aggregate Material Tax by holding a public hearing in their county. The county board must then register with the Commissioner of the Minnesota Department of Revenue, but does not need legislative approval.
- 2) The tax (which was set at 7 cents per short ton in 1980) should be set by each county within a range from 7 to 15 cents per short ton. Additional revenue from the change should be used to provide compensation to the host community and to increase reclamation funding.
- 3) Prior to distribution of the funds, the county auditor may deduct an annual administrative fee of up to 5% of the revenue collected in any year. The balance shall be distributed as follows: 42.5% to the county road and bridge fund, 42.5% to the host community general fund, and 15% to the county reclamation fund. The host community is the city where the mine is located. If

the mine is not located within a city, the host community is the town where the mine is located except that if the town is not organized, the host community is the county

- 4) The statute should be amended so that the 15% of the revenue from the tax currently set aside for reclamation is permanently dedicated for reclamation and cannot be transferred to other accounts, except if all reclamation needs have been met in that county. If all reclamation needs have been met in that county, then the money may be used for conservation or other environmental needs.
- 5) The statute should also be amended so that the 15% of the revenue set aside for reclamation can be used on private as well as public lands within the county that collected the tax according to the following priorities: first, reclamation of aggregate pits and quarries on public lands; second, reclamation of orphaned or abandoned aggregate pits and quarries on private lands; and third, reclamation of active gravel pits and quarries.

11. Incentives to Recycle Construction Waste Materials

The Aggregate Resources Task Force moves that legislation be drafted or incentives developed to encourage the recycling of construction waste materials for aggregate as appropriate. The Task Force further moves that legislation be developed to prevent the acceptance in demolition landfills of construction waste materials that can be used as aggregate.

12. Additional Sources of Recycled Aggregate Materials

The Aggregate Resources Task Force moves that the Department of Transportation work with the Pollution Control Agency, the Department of Natural Resources, other appropriate agencies and the private sector to make recommendations to the legislature that will promote and require the use in road construction of recycled materials such as blast furnace slag, taconite tailings, coal ash, and ash resulting from incineration of municipal solid waste, in situations where the use of such materials is economically and technically feasible.

13. Transportation of Aggregates

The Aggregate Resources Task Force moves that the State of Minnesota promote and protect the use of all modes of bulk transportation of aggregates, such as but not limited to railroad, barge, or pipeline so as to protect our highway infrastructure and our citizens from unnecessary commercial truck traffic.

14. Consequences

The Aggregate Resources Task Force recognizes that the consequences of depletion of the construction aggregate resources will have a serious impact on the growth and economic vitality of the state. Aggregate resources are fundamental for the public good. If aggregate resources

are not properly identified and managed, both the environment and the public will suffer detrimental consequences.

Therefore the Task Force moves that the Department of Natural Resources, Division of Lands and Minerals work with other interested parties to educate the public, local government, and others who are responsible for the permitting of aggregate mining. The goal of this education would be to minimize the detrimental consequences should long term planning and conservation of the aggregate resources be ignored.

Laws of Minnesota 1998, chapter 401, section 50: AGGREGATE RESOURCES TASK FORCE.

Sec. 50. [AGGREGATE RESOURCES TASK FORCE.]

Subdivision 1. [CREATION; MEMBERSHIP.] (a) An aggregate resources task force consists of 12 members appointed as follows:

- (1) the subcommittee on subcommittees of the senate committee on rules and administration shall appoint one citizen member with experience in the state's aggregates industry, one citizen member who is an employee of a local government unit that works with environmental and land use impacts from aggregate mining, and four members of the senate, two of whom must be members of the minority caucus; and
- (2) the speaker of the house shall appoint one citizen member who is an employee of a local governmental unit that works with environmental and land use impacts from aggregate mining, one citizen member with experience in native prairie conservation, and four members of the house, two of whom must be members of the minority caucus.
- (b) The appointing authorities must make their respective appointments not later than July 1, 1998.

The first meeting of the task force must be convened by a person designated by the chair of the senate committee on rules and administration. Task force members shall then elect a permanent chair from among the task force members.

Subd. 2. [DUTIES.] The task force shall examine current and projected issues concerning the need for and use of the state's aggregate resources. The task force shall seek input from the aggregate industry, state agencies, counties, local units of government, environmental organizations, and other interested parties on aggregate resource issues, including resource inventory, resource depletion, mining practices, nuisance problems, safety, competing land uses and land use planning, native prairie conservation, environmental review, local permit requirements, reclamation, recycling, transportation of aggregates, and the aggregate material tax.

Subd. 3. [REPORT.] Not later than February 1, 2000, the task force shall report to the legislature on the findings of its study. The report must include a recommendation as to whether there is a need for a comprehensive statewide policy on any aggregate resource issue. If the task force recommends a statewide policy, the report must include recommendations on the framework for the statewide policy.

Subd. 4. [EXPIRATION.] The aggregate resources task force expires 45 days after its report and recommendations are delivered to the legislature, or on June 30, 2001, whichever date is earlier.

INTRODUCTION

Why A Task Force On Aggregate Resources?

The Aggregate Resources Task Force was created by law in 1998 to examine issues concerning the need for and the use of aggregate resources. Aggregate resources, or construction aggregates, provide the foundation to our transportation infrastructure, homes, offices, schools, and factories. The use of these resources is ubiquitous, usually overlooked and undervalued—but critical to contemporary society.

The Minnesota Legislature created the Task Force to examine aggregate issues because of their statewide importance and several pressing concerns. Minnesota's strong economy and growing population are driving increased demand for aggregate resources. The question arises: Will these resources be available for future economic growth in the state? And at what costs, financial, environmental, and social?

Statewide, the annual demand for aggregates is over 50 million tons per year, which is an increase of about 50 percent since the early 1980s. During the same period within the Twin Cities metropolitan area, the demand has doubled to over 30 million tons per year, far outstripping projections of fifteen years ago. It is paradoxical that in many areas of the state, urban, suburban, and exurban development are covering over the same resources required as building materials for those same developments. Mine operators supplying the Seven County Metropolitan Area, have *permitted reserves* estimated to last only about thirteen years based on the current demand, and several regional trade centers are experiencing similar concerns. As mine operators are forced to look for resources further from where they are needed, delivered-material costs increase dramatically because of the costs of transporting the materials. Typically, costs double for every twenty-five to thirty miles that aggregate materials are transported. With proposed state transportation budgets in the billions of dollars and aggregate being conservatively estimated at about 10 percent of those costs, the costs of aggregate resources and transporting them to the marketplace are extremely important. For public projects, these costs are borne by the taxpayers.

Similarly, there are environmental and social costs associated with mining aggregates and delivering them to the marketplace. Although mining is an interim use of the land, a typical mine life covers ten to twenty years, or more, before the land is finally reclaimed. Subsequently, mining proposals often raise social concerns and acrimonious debate. Mining is often opposed by neighboring residents objecting to noise, dust and the increased truck traffic needed to deliver commodities to the marketplace. In spite of ways to mitigate these concerns, social impacts are real, and local opposition often prevails. Moreover, local opposition to mining is often pitted against regional resource needs. The typical result is that the regional needs are often given lip service, but usually ignored.

Furthermore, when a mine proposal becomes public, even in a jurisdiction where local zoning and comprehensive planning are in place and mining is a permitted use, the response to the proposal by local government varies. In some cases, local government is well staffed and prepared to respond to the proposal, while in other cases, the permitting authority is simply not prepared, or staffed, to make timely and appropriate decisions on complex technical issues.

As the Aggregate Resources Task Force began deliberating the myriad of issues and formulating recommendations, the complexity of the issues became apparent. The Task Force's final recommendations resulted from considerable discussion and thoughtful debate. The Task Force believes its recommendations to be constructive and moderate. The Task Force further recognizes the urgency to act. The details of how any particular recommendation is to be implemented are left to future legislative action.

Recommendations of the Task Force

The Task Force recommends fourteen actions spanning the range of its discussions. The recommendations are grouped into six areas:

- Providing technical assistance and resources to local government for managing resources under their jurisdiction and recommending actions to provide for consistency across local jurisdictions;
- Providing means to identify and protect aggregate resources for future use;
- Compensating host communities and increasing reclamation of mined properties;
- Expanding the use of recycled materials;
- Supporting use of multi-modal transportation for delivery of aggregate materials to the marketplace; and
- Educating government and the public.

If implemented, this set of recommendations will provide a broad framework for the management of aggregate resources through the state, helping to ensure the continued availability of these resources for future use at reasonable costs while maintaining existing environmental safeguards related to mining.

What this Report Contains

The final Task Force recommendations are based upon information received during the presentations, field trips, and public comment period and significant discussion and deliberations that followed.

In each of the six key areas, the recommendations are followed by a brief explanation that provides context.

Several key pieces of information that do not bear directly on the recommendations put forth by the Task Force have been included in appendices. These include a chronology of the Task Force's work (Appendix A); full listings of individuals and organizations that participated in the work of the Task Force (Appendix B) or were notified of public hearings (Appendix C). Between November 1998 and January 2000, the Task Force received numerous technical reports and produced several summary documents. Some of the key references are listed in Appendix D. Several of the recommendations suggest amendments to two state statutes that specifically address aggregate: 1) the Aggregate Planning and Protection Act, Minnesota Statutes, section 84.94 and 2) the Aggregate Materials Tax, Minnesota Statutes, section 298.75. The statutes can be found in Appendix E and F, respectively. Finally, a brief legislative history of the Aggregate Material Tax is in Appendix G.

In addition, the Task Force created a website to provide ongoing access to reports and meeting notices, and to allow submission of electronic format comments. The website can be accessed through the internet at

http://www.commissions.leg.state.mn.us/aggregate.resources/

A complete copy of this report along with other information about the Aggregate Resources Task Force is on the website.

RECOMMENDATIONS

Providing Technical Assistance and Resources

The Aggregate Resources Task Force adopted the following five recommendations to support local government in its role as the primary regulatory authority for aggregate mining. The first three recommendations are intended to provide technical assistance to local government by creating a uniform set of guidelines consisting of best management practices, minimum reclamation standards, and a standard mine plan form that can be used throughout the state. Local government may adopt more stringent management practices, standards, or mine plan requirements as needed. The fourth recommendation is for local government to consider adopting a three-level structure for local permits to accommodate the size and scope of aggregate operations. A schedule for completion of the permit process is suggested. The fifth recommendation is directed at native prairie conservation and aggregate mining.

Recommendation: Best Management Practices

The Aggregate Resources Task Force moves that Best Management Practices (BMPs) for aggregate mining be developed. Development of the BMPs will be coordinated by the Department of Natural Resources, Division of Lands and Minerals with input from other state agencies, local governments, environmental groups, the aggregate industry and other interested parties. Compliance with the BMPs is voluntary.

Context: Best Management Practices are being utilized by industries like the wood products industry. Several state agencies promote the use of BMPs or similar guidelines for certain aspects of aggregate mining. The Pollution Control Agency drafted BMPs in conjunction with the storm water treatment permit. The Department of Natural Resources has compiled a handbook on aggregate mining and reclamation practices. This recommendation allows for the development of a coordinated and unified set of Best Management Practices for aggregate mining. Matters such as hours of operation and traffic, among others, are most effectively handled by local permitting authorities and will not be addressed by BMP's.

Recommendation: Minimum Reclamation Standards

The Aggregate Resources Task Force moves that minimum reclamation standards be developed for aggregate mining. Development of the standards will be coordinated by the Department of Natural Resources, Division of Lands and Minerals with input from other state agencies, local governments, environmental groups, the aggregate industry, and other interested parties. The minimum standards will be in effect statewide and will be administered by counties or cities.

Context: Currently, there is no state or federal mining permit in Minnesota that requires aggregate operations to be reclaimed. Reclamation at active aggregate mining sites is most often addressed in a local permit or through leasing agreements between landowners and mining companies. The most extensive review of aggregate mining operations takes place at the local unit of government–county, township or municipality. In Minnesota, there are 87 counties, 1,802 townships, and 855 cities. Each of these entities has the authority to regulate aggregate mining through zoning ordinances and land use planning. Operating concerns such as view, noise, dust, hours of operation, traffic, and final reclamation are frequently addressed in local permits. Because each jurisdiction has a unique approach, there are differences in the ways in which local governments regulate aggregate mining and final reclamation. The standards for reclamation vary by county, township, and city.

This recommendation will provide greater uniformity across the state by establishing minimum reclamation standards that apply to active aggregate mining operations. The expectations for the aggregate industry regarding reclamation will be consistent statewide. Implementing minimum reclamation standards will not require a new state permit, but rather, the standards can be adopted through local permitting authorities. Local permitting authorities may adopt more stringent standards as desired.

Recommendation: Mine Plans, Part A–Development and Components

The Aggregate Resources Task Force moves that a mine plan be filed in the county where the operation is located for all active aggregate mining operations which currently exceed 10 acres in size and for all future aggregate mining operations which are projected to exceed 10 acres in size over the life of the mine. Each mine plan will describe all aspects of mining including interim and final reclamation. Mine plans will be submitted on a standardized mine plan form. Development of the form will be coordinated by the Department of Natural Resources, Division of Lands and Minerals with input from other state agencies, local government, environmental groups, the aggregate industry and other interested parties. Mine plans must be filed at the time of permit application and will be available for review by the public.

Context: Some local permits now require the preparation of a mine plan. The purpose of a mine plan is to ensure that mining will proceed in an environmentally sound manner and that the area will have future value and be left in a safe, nonpolluting condition. A mine plan may address view, noise, dust, hours of operation, traffic, and final reclamation. Because local permit requirements vary, there are differences among local permitting authorities as to whether a mine plan is required and what it should contain. This recommendation directs that a standard mine plan form be developed and that a mine plan be filed for active operations that are or will exceed 10 acres in size over the life of the mine. The mine plan form is intended to serve as technical tool for local permitting authorities. Use of the mine plan form will result in greater uniformity across the state in terms of mine planning.

Recommendation: Mine Plans, Part B-Technical Review

In addition, for any new proposal that will exceed 10 acres in size, the Department of Natural Resources, Division of Lands and Minerals will conduct a technical review of the mine plan. The Department of Natural Resources, Division of Lands and Minerals will prepare a report for the local permitting authority containing the findings of the technical review. The report will also indicate the applicable state and federal standards relating to, but not limited to, dust, noise, air, and water permits and the status of any application for those permits. Fees to cover the cost of the technical review will be assessed to the project proposer.

Context: In general, state agencies currently have no regulatory role in administering or reviewing local permits. Depending on the size and scope of the mining operation, however, some state and federal permits may apply to certain aggregate mining operations. State permits from the Department of Natural Resources may be required if there is a need to appropriate water. Permits from the Pollution Control Agency may be required relating to storm water discharge, water quality, air emissions, and above ground storage tanks.

For large, long-term aggregate mining operations, environmental concerns can be more complicated than for smaller, short-term operations. In some instances, for example, local permitting authorities may not have the technical expertise on staff to assess complex groundwater models. It can also be difficult to sort out applicable state and federal standards for dust, noise, air, and water. This recommendation provides for a technical review by the Department of Natural Resources, Division of Lands and Minerals of mine plans for operations that are or will be greater than 10 acres in size.

The report to the local permitting authority will contain the results of the review and a summary of applicable state and federal permits and standards. The intention is to provide technical assistance to local permitting authorities.

Recommendation: Mine Plans, Part C-Technical Assistance Guide

The Department of Natural Resources, Division of Lands and Minerals will prepare a guide containing: 1) the mine plan form, 2) best management practices for aggregate mining, 3) recommended minimum reclamation standards, and 4) a list of state and federal standards related to dust, noise, air, and water which are applicable to aggregate mining.

Context: Communication is critical in accomplishing the goals that are explicit throughout this recommendation. To this end, this recommendation directs the Department of Natural Resources, Division of Lands and Minerals to assemble a guide that captures all of the technical support items referenced previously. Specifically mentioned are the best management practices for aggregate mining, the minimum reclamation standards, the standard mine plan form, and a list of state and federal standards for dust, noise, air, and water. The intention is to provide an informative and easy to use guide that will assist both the aggregate industry and local permitting authorities.

Recommendation: Mining Permits

The Aggregate Resources Task Force moves that counties, townships, and municipalities consider adopting three levels of aggregate mining permits to accommodate the size and range of aggregate operations and deposits. Permit fees could be imposed by permitting authorities.

- Level 1 Permit: This is an expedited permit to meet the needs of short-term road construction projects. It applies to operations that will not exceed 10 acres of excavated area to a mean depth of 10 feet and will be active for one operating season. The proposed mine plan would be submitted on a standard mine plan form and reviewed by the local permitting authorities. Compliance with minimum reclamation standards is expected. Permit turnaround time is 20 calendar days once a completed application has been submitted.
- Level 2 Permit: This permit applies to operations that will <u>not</u> exceed 10 acres of excavated area to a mean depth of 10 feet over the life of the operation and will be active for more than one operating season. The proposed mine plan would be submitted on a standard mine plan form and reviewed by the local permitting authorities. Compliance with minimum reclamation standards is expected. Permit turnaround time is 60 calendar days once a completed application has been submitted.
- Level 3 Permit: This permit applies to operations that will exceed 10 acres of excavated area to a mean depth of 10 feet over the life of the operation. The proposed mine plan would be submitted on a standard mine plan form and reviewed by the local permitting authorities. In addition, the proposed mining plan would undergo a technical review by the Department of Natural Resources, Division of Lands and Minerals. Compliance with minimum reclamation standards is expected. Permit turnaround time is 120 calendar days once a completed application has been submitted.

Context: There is a wide variability in the size and scope of aggregate mining operations in Minnesota. Some are active only for one season to serve road construction projects while others are long-term operations, on a fixed site, that operate continuously over the course of several years. The materials being mined and the mining methods also vary greatly. Some operators mine unconsolidated sand and gravel materials left by glaciers; others produce crushed rock blasted from bedrock. Some operators mine within the groundwater table and others remain above the water table. Lastly, the type of auxiliary facilities utilized at an

aggregate operation, such as crushers, wash plants and asphalt plants, varies over time and place.

This recommendation is designed to accommodate differences in aggregate mining operations by suggesting three levels of local permits based on the size and duration of the operation. Time frames for completion of the permits are further suggested so that closure to the permitting process is assured. The intention is that small operations with a short operating life should expect a faster permit issuance while permits for larger long-term operations will require more time to complete the permitting process.

Recommendation: Native Prairie Conservation

The Aggregate Resources Task Force moves that when a native prairie habitat larger than 5 acres will be lost as a result of an aggregate mining operation, all opportunities to avoid the loss should be considered. Legislation should be written to prevent native prairie from being destroyed (for example, by spraying) while an environmental review process is under way. A funding source for native prairie conservation incentives should be established. A special fee should be imposed upon mining operators that destroy native prairie as a result of mining. The fees would support a fund used to acquire other native prairie parcels.

Context: Native prairie conservation is a prominent issue in western and northwestern Minnesota. At the close of the last ice age, a series of beach ridges developed at the margins of Glacial Lake Agassiz. The lake eventually drained and the lake bed became the modern day Red River Valley. Today, underlying certain areas of the beach ridges is an important source of aggregate materials for the Red River Valley region. Portions of these same beach ridges also support some of the largest and best remnants of native prairie remaining in Minnesota and the entire Midwest. Throughout the Red River Valley, aggregate mining has expanded on the beach ridges to meet increasing market demands in both Minnesota and North Dakota. At the same time, the acreage of native prairie is declining due to pressure from a variety of land uses. Balancing the need to conserve prairie habitat with the pressure to develop aggregate deposits is challenging. This recommendation suggests ways to minimize the loss of prairie habitat due to aggregate mining.

Identifying and Protecting Aggregate Resources

The Aggregate Resources Task Force adopted the following four motions to encourage local government to protect aggregate resources for future use. The first motion recommends that aggregate resources be addressed during comprehensive planning by local government. The second motion provides for registration of commercial aggregate resources to protect owners of aggregate resources from changes in zoning that might preclude future extraction. The third motion provides for delivering aggregate resource information to counties to use for planning and protecting aggregate resources that will be needed in future years. The fourth motion supports a means for continued competitive bidding for state highway road projects.

Recommendation: Aggregate Planning and Protection

The Aggregate Resources Task Force moves that Minnesota Statutes, section 84.94, be amended to require that all counties, cities, and towns that undertake comprehensive planning be required to address issues relating to aggregate resources. Issues to be addressed in comprehensive planning include: regional need for aggregate resources, inventory of existing and potential aggregate mining areas, environmental concerns, conflicting land uses, mining operations, permitting standards and process, and reclamation. This requirement should also be included in Minnesota Statutes, Chapter 394 and other applicable Minnesota Statutes pertaining to comprehensive planning.

Context: Aggregate resources are finite and non-renewable; the range of aggregate resource issues communities face require long-term perspectives and planning. Aggregate resource consumption continues to increase; the demand for construction aggregates statewide in the next 25 years may exceed that of the last 100 years. The state, municipalities, and towns purchase approximately 50 percent of the total aggregate resources consumed every year for the construction and maintenance of roads, schools, airports, public buildings, and other capital bonding projects. It is in the state's interest to maintain *local* supplies of construction aggregates at *reasonable costs* to taxpayers. To accomplish this, local planners need to prevent the future need to truck aggregate long distances to a jobsite, which increases costs based upon distance or time hauled.

Recommendation: Registration of Commercial Aggregate Deposits

The Aggregate Resources Task Force moves that Minnesota Statutes, section 84.94, be amended to provide for the registration of land that contains commercial aggregate deposits by the filing of a verified statement that a commercial aggregate deposit exists on the land. The purpose of registration is to encourage the identification and preservation of commercial aggregate deposits.

Land containing commercial aggregate deposits may be registered if two criteria are met. First, a registered professional geologist, engineer, or soil scientist must delineate the deposit and certify that it is a commercial deposit. Second, if the land is zoned, the existing zoning must allow mining as a permitted use or as a conditional use. A notice of intent to register must be submitted to the local zoning authority by the landowner at least 120 days in advance of registration. If the two criteria are not met, the zoning authority may deny the proposed registration. The land that contains a commercial aggregate deposit may be registered by the landowner by the filing for record in the county recorder's office or, if registered land, in the registrar of titles office in the county where the land is located, of a verified statement that the land contains a commercial aggregate deposit. Copies of registrations are to be sent to the Department of Natural Resources, Division of Lands and Minerals where they will be kept on file. Registration lasts for a period of ten years and may be automatically renewed for an additional ten year period. During the registration period, zoning cannot be changed to prohibit mining of registered land. For landowners who register land, the property tax should be that of the lowest agricultural rate in the county.

Context: This recommendation proposes a means to protect construction aggregate resources for future use. County planning and zoning, in an attempt to lessen future land use conflicts over aggregate mine development, would designate future mining lands and identify them publically. By publicizing the registration, county planning staff, county highway engineers, developers, environmental groups, neighbors, future land buyers, and realtors would be aware of possible future minesites. For areas containing aggregate resources, a planned sequence of extraction and subsequent reclamation *prior to* a long term developments such as residential or retail or open space is preferred and is made possible through registration.

Recommendation: Aggregate Resource Mapping

The Aggregate Resources Task Force moves that aggregate resource mapping be expedited to complete the mapping in all Minnesota counties no later than the end of fiscal year 2006. The Department of Natural Resources, Division of Lands and Minerals will be the lead agency. The work will be performed by the Department of Natural Resources, Division of Lands and Minerals, by the Minnesota Geological Survey, and by private contractors. Mapping priorities, to be determined in time for the 2000 legislative session, will be counties that are rapidly urbanizing and contain regional centers. Mapping products will include the Department of Transportation data electronically linked to map displays for geographic information system use by local government. The maximum funding is set at \$8 million and is recommended to be a special appropriation from the general fund to the Department of Natural Resources, Division of Lands and Minerals in addition to their base budget.

Context: County Aggregate Mapping provides several products to local government for use in developing comprehensive plans and zoning ordinances related to aggregate resources. The first product is a series of maps that delineate areas of aggregate resource potential pictorially. The second product, which is for counties with GIS and other analytical software, includes maps, data characterizing existing aggregate resources, field information at specific sites, and an explanation of the mapping and data. The digital products are designed to be used with other information the counties manage.

County mapping will provide counties with adequate resource information to establish policies or create zoning districts to protect the future aggregate supply, and provide some control of costs for public infrastructure expenditures, should they make that choice. In addition, the mapping will provide counties an indication of areas where mining proposals are likely to occur.

Since land use pressures are rapidly increasing, the Task Force recommends that this work proceed at as rapid a pace as feasible statewide—over three bienna—and also that the mapping priorities be urbanizing areas and regional trade centers where aggregate demand is the greatest.

Recommendation: Leasing

The Aggregate Resources Task Force moves that the Department of Transportation continue its policy of leasing and purchasing aggregate reserves.

Context: The Minnesota Department of Transportation has a program to lease aggregate resources on a temporary basis for up to 6 years prior to a nearby state highway project. The purpose is to prevent a monopoly on the aggregate supply by any one contractor bidding on the project. The program has been effective at keeping bids competitive.

Compensating Host Communities and Increasing Reclamation - Amendments to the Aggregate Material Tax

The Task Force adopted this recommendation regarding the Aggregate Material Tax as a means of compensating host communities and encouraging appropriate reclamation.

Recommendation: Compensating Host Communities and Increasing Reclamation

The Aggregate Resources Task Force moves that the Aggregate Material Tax (Minnesota Statutes, section 298.75) be revised to:

- 1) Include a procedure to allow any county board to obtain authority for administering the Aggregate Material Tax by holding a public hearing in their county. The county board must then register with the Commissioner of the Minnesota Department of Revenue, but does not need legislative approval.
- 2) The tax (which was set at 7 cents per short ton in 1980) should be set by each county within a range from 7 to 15 cents per short ton. Additional revenue from the change should be used to provide compensation to the host community and to increase reclamation funding.
- 3) Prior to distribution of the funds, the county auditor may deduct an annual administrative fee of up to 5% of the revenue collected in any year. The balance shall be distributed as follows: 42.5% to the county road and bridge fund, 42.5% to the host community general fund, and 15% to the county reclamation fund. The host community is the city where the mine is located. If the mine is not located within a city, the host community is the town where the mine is located except that if the town is not organized, the host community is the county
- 4) The statute should be amended so that the 15% of the revenue from the tax currently set aside for reclamation is permanently dedicated for reclamation and cannot be transferred to other accounts, except if all reclamation needs have been met in that county. If all reclamation needs have been met in that county, then the money may be used for conservation or other environmental needs.
- 5) The statute should also be amended so that the 15% of the revenue set aside for reclamation can be used on private as well as public lands within the county that collected the tax according to the following priorities: first, reclamation of aggregate pits and quarries on public lands; second, reclamation of orphaned or abandoned aggregate pits and quarries on private lands; and third, reclamation of active gravel pits and quarries.

Context: The history of the Aggregate Material Tax dates back to 1961 when the Minnesota State Legislature passed a bill allowing Clay County to impose a tax on gravel removal. Four years later, the legislature allowed Norman County to impose a similar tax in an amount not to exceed five cents per cubic yard of gravel. Neither act specified the commodity to be taxed beyond gravel nor did the acts specify how the tax revenue was to be used. In the late 1970s, similar legislation was enacted for Kittson, Marshall, Becker and later Polk counties while making changes in the definition of gravel, increasing the tax rate to ten cents per cubic yard, and establishing a reserve fund for the restoration of abandoned gravel pits. Subsequent legislative sessions resulted in additional changes to the law.

The original intent of the tax was to provide revenue to northwestern Minnesota counties that were supplying gravel to build the interstate highway network in North Dakota. Currently, twenty-three counties throughout the state, and fourteen townships in St. Louis County, have statutory authority to collect the Aggregate Material Tax. Appendix F contains the Aggregate Material Tax law, Minnesota Statutes, section 298.75. Appendix G outlines the specific changes in the Aggregate Material Tax from its origin to the present.

The Aggregate Resources Task Force recommends a number of changes be made to the current law. First, the Task Force recommends changes to ease the ability of counties to enact the tax. Second, the Task Force recommends the tax rate should be changed to provide compensation to the community that hosts the mining operation and to provide for increased reclamation of mined properties. The host community concept provides for direct compensation to towns or municipalities (and in some cases counties if the host township is unorganized) that are affected most immediately and directly by the mining operation. The recommendations for the reclamation provisions dedicate the tax revenue to reclamation or other conservation needs, and will allow reclamation fund expenditures for reclamation on aggregate pits and quarries on private lands as well as public lands.

Increasing the Use of Recycled Materials

The Aggregate Resources Task Force adopted the following two motions to encourage increased recycling of construction demolition materials and the use of industrial waste products as construction aggregates where appropriate. Recycled materials currently supply an estimated 10 percent of the annual construction aggregate demand in the state. Increasing the use of recycled materials will reduce the need for new aggregate mined from pits and quarries and, at the same time, reduce the volume of materials disposed in demolition landfills.

Recommendation: Incentives to Recycle Construction Waste Materials

The Aggregate Resources Task Force moves that legislation be drafted or incentives developed to recycle construction waste materials for aggregate as appropriate. The Task Force further moves that legislation be developed to prevent the acceptance in demolition landfills of construction waste materials than can be used as aggregate.

Context: Some construction demolition materials can be processed and re-used as construction aggregates. Examples include sidewalks, road pavements, building foundations and walls, and concrete blocks. The Minnesota Department of Transportation currently specifies re-use of these materials for many state highway projects.

However, demolition materials that can be used as construction aggregates need to be transported to processing facilities for crushing, sorting, and removal of non-recyclable components (such as steel rebar) prior to re-use. In the Twin Cities metropolitan area, there is little need for economic incentives to increase recycling of demolition material, because of the number of facilities that recycle these materials. However, in Greater Minnesota, there are limited numbers of recycling facilities that accept demolition materials. Ultimately, transportation costs become a disincentive to recycling and demolition materials are often landfilled.

In regard to bituminous demolition materials, the petroleum products within the recycled materials are valuable in addition to the aggregate. Hence, bituminous is readily re-usable in new bituminous mixes, and the economics drive the practice.

Recommendation: Additional Sources of Recycled Aggregate Materials

The Aggregate Resources Task Force moves that the Department of Transportation work with the Pollution Control Agency, the Department of Natural Resources, other appropriate agencies and the private sector to make recommendations to the legislature that will promote and require the use in road construction of recycled materials such as blast furnace slag, taconite tailings, coal ash, and ash resulting from incineration of municipal solid waste, in situations where the use of such materials is economically and technically feasible.

Context: In contrast to the re-use of demolition materials as construction aggregate, this motion refers to industrial waste products and by-products that have demonstrated value as replacements for traditional construction aggregates. Taconite tailings, for example, have been used in bituminous road overlays in northeastern Minnesota and have performed well. Large volumes of taconite materials offer potential for increased use for some applications, but bulk transportation costs currently make widespread use of tailings uneconomical. In the case of coal fly ash, Northern States Power has developed products that substitute for cement. Department of Transportation specifications are in place, while the necessary state Pollution Control Agency approvals are pending. The Department of Transportation has maintained a proactive stance in supporting the use of such waste products, if the recycled material is of equal or better quality to new aggregate materials.

Supporting the Use of Multi-modal Transportation for Delivering Aggregates

The Aggregate Resources Task Force adopted the following motion to support the use of railroad, barge, or pipeline to transport aggregates.

Recommendation: Transportation of Aggregates

The Aggregate Resources Task Force moves that the State of Minnesota promote and protect the use of all modes of bulk transportation of aggregates, such as but not limited to railroad, barge, or pipeline so as to protect our highway infrastructure and our citizens from unnecessary commercial truck traffic.

Context: Our communities are composed—in part—of structures such as roads, bridges, ramps, commercial buildings and homes, built using construction aggregates. As our economy and population grows, communities demand new structures, and the replacement or refurbishment of existing ones. This, in turn, drives the demand for aggregates. A dilemma exists because as land development expands from a community, aggregate mine sites are forced farther out, thereby increasing the truck hauling distances for aggregate from source to jobsite.

The Twin Cities metropolitan area example illustrates how this is a problem. When currently permitted local aggregate reserves for the Seven County Metropolitan Area are nearing exhaustion in approximately 13 years, it is estimated that more than 1 million truck trips will be needed to deliver construction aggregates into the Twin Cities market from beyond the metropolitan area. Some aggregate material will likely arrive in Saint Paul by barge, but perhaps none into Minneapolis. Continued barge traffic into the Mississippi River Upper Harbor in Minneapolis is in doubt because the city is proposing to move heavy industry off of the river in the future. Furthermore, there are no operating railroad terminals for aggregate in either city. The projected increase in aggregate truck traffic will lead to more traffic congestion, put more wear on the road system, and degrade air quality.

Bulk transportation of construction aggregates by means other than trucks needs to be encouraged. Continued use of barges is economical and environmentally less intrusive than trucking. Barge hauls also reduce truck traffic and lessen the impact on citizens who use the roadways. Resuming the use of rail to transport aggregates would similarly reduce truck traffic and reduce the impact on citizens. Long-distance rail transport could also potentially lead to more use of industrial by-products as aggregate. The large reserves of taconite tailings have potential for use as aggregate in markets outside of northeastern Minnesota if bulk transportation cost issues could be resolved.

The Task Force is concerned that the consequences of inaction regarding this motion will likely be felt in about 15 years by citizens who use the Twin Cities area highway system.

CONCLUSION

The Consequences of Inaction

The Aggregate Resources Task Force recognizes that aggregate resources are fundamental to the public good. Furthermore, the Task Force recognizes that sound, socially-responsible policies are needed to ensure the long-term availability of aggregate resources for the state's citizens.

The Task Force concludes that in the absence of action on its recommendations the public will be burdened with additional costs—financial, environmental, and social.

Recommendation: Consequences

The Aggregate Resources Task Force recognizes that the consequences of depletion of the construction aggregate resources will have a serious impact on the growth and economic vitality of the state. Aggregate resources are fundamental for the public good. If aggregate resources are not properly identified and managed, both the environment and the public will suffer detrimental consequences.

Therefore the Task Force moves that the Department of Natural Resources, Division of Lands and Minerals work with other interested parties to educate the public, local government, and others who are responsible for the permitting of aggregate mining. The goal of this education would be to minimize the detrimental consequences should long term planning and conservation of the aggregate resources be ignored.

Appendix A

Chronology of Task Force Activities

Meetings to Identify Issues

During the first two meetings, the Task Force organized, reviewed the statute that created the Task Force, gathered background information, and developed a list of issues to investigate. Representative Rukavina was elected Chairman.

At the first meeting, the Task Force took testimony from representatives of the Department of Natural Resources, the aggregate industry, county government, and The Nature Conservancy. Presenters provided information on the conditions that provided the impetus for the Task Force—historical framework, existing conditions and issues, and future concerns.

At the second meeting, the Task Force developed a meeting schedule and heard presentations that further identified the public needs for a stable future aggregate supply. Representatives of the Minnesota Transportation Alliance, Minnesota Department of Transportation, and the aggregate industry presented information. The presentations provided members with information on:

- the public transportation system infrastructure;
- the need for a low cost future supply of aggregate to build and maintain the transportation infrastructure;
- the future supply outlook for the Twin Cities metropolitan area; and
- pressures to curtail certain existing barge and rail aggregate transportation modes.

Presentations

The Task Force sought out experts on many different issues and viewpoints, based upon the topics identified in the statute and from concerns raised during the early meetings. Twenty-four parties provided testimony at six public meetings. Presenters covered a wide range of viewpoints on the topics listed in the statute. The presentations included topics such as:

- the local government experience (from county planners, city officials, township officers, and county commissioners);
- native prairie restoration of mine sites;
- recycled products;
- groundwater and permit applications issues; and
- concerns over the future aggregate supply for the Twin Cities area.

Field Trips

The Task Force took two field trips to gather information first-hand about local issues. Field trips provided opportunities to examine different types of mine pit and quarry sites, reclamation sites, and post-mining development sites in both the Twin Cities metropolitan area and in rural Minnesota.

The first field trip covered four sites in the Twin Cities metropolitan area.

- In the city of Maple Grove, Task Force members learned how the city has worked with gravel producers to create a thriving commercial development and government center on a former large mine site.
- The second site was a commercial terminal for rail, truck, and barge within the Mississippi River Upper Harbor.
- A third stop was the Minneapolis-St. Paul International Airport, where major new construction of parking and runway facilities consume significant volumes of aggregate.
- The final stop was Grey Cloud Island in the Mississippi River, where
 the mine operator uses underwater dredging technology, and processed
 products are loaded on barges for the St. Paul and Minneapolis
 markets. The Task Force also observed and discussed reclamation of
 inactive mine areas.

The second field trip traveled to sites in four counties (Benton, Stearns, Clay, and St. Louis) over two days. Task Force members examined mining, reclamation, prairie conservation, local permitting, transportation, aggregate quality specifications, taconite waste rock applications, land use, and tax issues. Task Force members met with local hosts to discuss issues at every stop on the trip.

Public Hearings

The Task Force held public hearings during the day and evening of September 29, 1999, in addition to soliciting and accepting written comments in the sixty days leading up to the hearing. During the public hearings, Task Force members listened to testimony, asked questions, and discussed possible solutions with those who testified. The oral testimony was transcribed, and members used the subsequent transcript in creating recommendations.

The Task Force made significant efforts to provide public notification of the hearings. A website (http://www.commissions.leg.state.mn.us/aggregate.resources/) was created to distribute information and to post the hearing notice. Press releases were sent out to 1200 organizations statewide, including news media and other pertinent groups, such as local government

organizations and trade associations. A telephone hotline was set up to answer questions and distribute information.

Development of Recommendations

The Task Force developed fourteen recommendations in the form of motions, based upon their investigations and deliberations. More than 600 notices were mailed out to parties that could be affected, or to organizations and trade associations (see Appendix C for listing of organizations notified). These meetings spanned five days—November 29 and 30, 1999, and January 10,11, and 12, 2000.

Appendix B

People and Organizations That Participated in the Work of the Task Force

Public Meeting Presenters, Arranged by Meeting and Last Name

November 17, 1998

Dr. William Brice, Director, Division of Minerals, Minnesota Department of Natural Resources; Legislative History Regarding Aggregate Resources

Mr. Robert McKim, State Director, The Nature Conservancy; The Nature Conservancy's Priority Landscapes and the Need for Dialogue on Land Use Conflict

Mr. Dave Weirens, Policy Analyst, Association of Minnesota Counties; Overview of County Government's Role in Regard to Aggregate Issues

Mr. Eugene Wright, Director, Aggregate and Readymix Association of Minnesota; Overview of Minnesota's Aggregate Industry

January 27, 1999

Mr. Fred Corrigan, Executive Vice President, Minnesota Transportation Alliance; The Role of Aggregate in the State's Transportation System

Mr. Paul Rowekamp, Geotechnical Engineer, Minnesota Department of Transportation; Aggregate Consumption in the State Highway System

Mr. Don Vry, Senior Vice President, Meridian Aggregates; The Challenge of Permitting Aggregate Facilities Near Populated Areas

Mr. Jonathan Wilmshurst, Regional President, CAMAS Minnesota, Inc.; Dwindling Supply of Aggregate Resources in the Metro Area

March 3, 1999

Mr. Lowell Johnson, Manager; Mr. Dennis O'Donnell, Senior Land Use Specialist/ Zoning; and Ms. Ann Pung-Terwedo, Senior Land Use Specialist/Zoning; Department of Health, Environment and Land Management, Washington County; Aggregate Resources and Land Use Controls in Washington County

Mr. Stephen Rohlf, Building and Zoning Administrator, City of Elk River; Elk River Experience Coordinating an Alternative Urban Areawide Review Mr. John Shardlow, President and Director of Planning; Dahlgren, Shardlow, and Uban, Inc.; Keys to Successful Aggregate Resource Regulation, Mining, and Reclamation in the Metropolitan Market Area

March 24, 1999

Mr. Ron Bowen, President, Prairie Restorations, Inc.; Region-Specific Reclamation using Native Species

Ms. Cindy Buttleman, Regional Minerals Specialist, Division of Minerals, Minnesota Department of Natural Resources; Statewide Overview of Permitting and Reclamation Requirements

Mr. Nels Nelson, Vice President, Barr Engineering Company; Addressing Technical Issues in the Permitting Process

Mr. John Prouty, Township Officer, Grand Lake Township, St. Louis County; A Township Perspective

April 28, 1999

Ms. Ann Glumac, President, Iron Mining Association and Mr. Richard Maki, Vice President of Operations, EVTAC Mining; Use of Taconite Industry By-products as Construction Aggregates

Mr. Gerry Rohrbach, Director, Office of Material and Road Research, Minnesota Department of Transportation; Use and Evaluation of Recycled Materials by Minnesota Department of Transportation

Mr. Chad Sauer, Vice President of Field Operations, Tiller Corporation; Overview of Recycled Materials as Aggregate in the Metropolitan Area: A Producers Perspective

Mr. Mike Thomes, Ash Utilization Process Leader, Northern States Power Company; Use of Coal Ash as Construction Aggregates

May 26, 1999

Mr. Tom Delaney III, Chairman, Chisago County Board; The Aggregate Material Tax: A County Perspective

Mr. Dennis Martin, Senior Geologist, Division of Minerals, Minnesota Department of Natural Resources; DNR's Program of Aggregate Mapping for Counties

Dr. David Southwick, Director, Minnesota Geological Survey; Updating the Aggregate Resource Inventory in the Seven County Metropolitan Area

Mr. Donald Walsh, Manager, Minerals Tax Office, Minnesota Department of Revenue; The Aggregate Material Tax: History, Purpose, Authorized Counties, Revenues, and Allocations

Mr. Eugene Wright, Director, Aggregate and Readymix Association of Minnesota; Projected Construction Aggregate Availability in the Metropolitan Area: Demand vs. Estimated Resource Supply

Contributors to the Report "Minnesota's Aggregate Resources - Road to the 21st Century," November 1998

Association of Minnesota Counties

CAMAS Minnesota, Inc.

Cemstone Products Company

Edward Kraemer and Sons, Inc.

EVTAC Mining

League of Minnesota Cities

Meridian Aggregates Company

Minnesota Asphalt Pavement Association

Minnesota Association of Townships

Minnesota Department of Natural Resources

Minnesota Department of Transportation

Minnesota Geological Survey

The Nature Conservancy

Tiller Corporation

Tower Asphalt, Inc.

Ulland Brothers, Inc.

Field Trip Hosts

Ames Sand & Gravel

Bauerly Companies

CAMAS Minnesota, Inc.

Cemstone Products Company

City of Cottage Grove

City of Maple Grove

Clay County Board of Commissioners

Cold Spring Granite

Coon's Aggregate

Dahlgren, Shardlow & Uban, Inc.

Earth Burners, Inc

EVTAC Mining

Meridian Aggregates

Minneapolis Park and Recreation Board

Minnesota Department of Natural Resources

Minnesota Department of Transportation

Minnesota Transportation Alliance

Northland Constructors

Ogsden RV Park

Stearns County Park Department

The Nature Conservancy

Tiller Corporation

Twig Township

Ulland Brothers, Inc.

U.S. Army Corps of Engineers

Citizens Offering Oral Testimony at Public Hearings, September 29, 1999

Mr. Will Branning, Dakota County Commissioner

Dr. Bill Brice, Minnesota Department of Natural Resources

Ms. Cathy Busho, City of Rosemount Mayor

A Citizen from Meeker County

Mr. David Edmunds, Edward Kraemer & Sons, Inc.

Mr. Ron Gajewski, Solway Township supervisor

Mr. Paul Iversen, International Union of Operating Engineers, Local 49

Mr. Rick Maki, EVTAC Mining

Mr. Steve Morse, Minnesota Department of Natural Resources

Mr. Jack Murray, Becker County Commissioner

Mr. Jon Schumacher, Representing S.A.V.E

Mr. John Shardlow, Dahlgren, Shardlow & Uban, Inc.

Dr. John Shoemaker, Aggregate Consultant

Dr. David Southwick, Minnesota Geological Survey

Ms. Cindy Whiting, Solway Township clerk

Citizens Offering Written Testimony During the Public Comment Period, August Through September, 1999

Ms. Janet Boe, Minnesota Chapter of the Wildlife Society

Mr. David G. Edmunds, Edward Kraemer & Sons, Inc.

Mr. Bob Fitch, Minnesota Nursery and Landscape Association

Mr. Stephen J. Hedberg, Hedberg Aggregates, Inc.

Mr. Ronald L. Hockin, Tower Asphalt Inc.

Mr. Terry Johnson, Anderson Brothers Construction Co.

Mr. Steve Morse, Minnesota Department of Natural Resources

Mr. Ken Neeser, Benton County Board of Commissioners

Mr. Larry V. Nurre, Southern Minnesota Construction Co., Inc.

Mr. Mark Sakry, Stearns County Commissioner

Mr. James W. Sanders, Superior National Forest

Ms. Marcia Shepard, Focus 10,000 (9/10/99 letter)

Ms. Marcia Shepard, Focus 10,000 (9/14/99 letter)

Mr. Clare Stromlund, Mr. Ron Gajewski, and Ms. Cindy Whiting, Solway Township Officials

Mr. Michael R. Thomes, Northern States Power Company

Mr. Don Vry, Meridian Aggregates

Appendix C

Organizations Notified of Task Force Public Meetings

County/Township/Municipal Government and Related Associations

Association of Metropolitan Municipalities

Association of Minnesota Counties

Association of Small Cities

City Economic Development Personnel

Coalition of Greater Minnesota Cities

County Auditors

County Economic Development Personnel

County Engineers

County Land Commissioners

County Planning and Zoning Personnel

League of Minnesota Cities

Minnesota Association of County Administrators

Minnesota Association of County Land Commissioners

Minnesota Association of County Officers

Minnesota Association of Township Officers

Minnesota County Engineers Association

Range Association of Municipalities & Schools

Federal Government

National Park Service

United States Fish and Wildlife Service

United States Forest Service

United States Senator Oberstar–District 8

Individuals Who Specifically Requested Information

Minnesota State Government

Board of Water and Soil Resources

Environmental Quality Board Monitor

Iron Range Resources and Rehabilitation Board

Metropolitan Council

Minnesota Department of Agriculture

Minnesota Department of Health

Minnesota Department of Natural Resources

Minnesota Department of Revenue

Minnesota Department of Transportation

Minnesota Geological Survey

Minnesota Planning

Minnesota Pollution Control Agency

Natural Resources Research Institute

Trade Associations

Aggregate & Readymix Association of Minnesota

American Planning Association

Builders Association of Minnesota

Concrete Paving Association of Minnesota

Highway Construction Industry Council

Minnesota Asphalt Pavement Association

Minnesota Concrete & Masonry Contractors Association

Minnesota Limestone Producers Association

The Minnesota Transportation Alliance

Unions

International Union of Operating Engineers, local 49

United Steelworkers of America

Other Organizations

Friends of the Minnesota Valley

Greening the Great River Park

Iron Mining Association of Minnesota

Minnesota Exploration Association

Minnesota Power

National Audubon Society

Northern States Power

The Nature Conservancy

Appendix D

Selected References, in Chronological Order

A Status Report on Sand, Gravel, and Crushed Rock, September, 1979. Minnesota Department of Natural Resources. 75 pp.

Aggregate Resources in the Twin Cities Metropolitan Area, May, 1983. Metropolitan Council of the Twin Cities Area. Publication No. 10-83-019, 103 pp.

Aggregate Resources Inventory, Twin Cities Metropolitan area, Minnesota, 1984. Minnesota Geological Survey, University of Minnesota, St. Paul. 16 pp.

Protecting Aggregate Resources in the Twin Cities Metropolitan Area, November, 1985. Report of the Aggregate Resources Advisory Committee to the Minnesota Legislature. 55 pp.

A Review of Regulations Regarding the Reclamation of Sand and Gravel Pits in Minnesota, January, 1989. Task Force on Sand and Gravel Pit Reclamation to the Governor. 72 pp.

A Handbook for Reclaiming Sand and Gravel Pits in Minnesota, July, 1992. Minnesota Department of Natural Resources, Division of Minerals. 65 pp.

Mining, Society, and the Environment, January, 1994. Minerals Team, Minnesota Sustainable Development Initiative. 78 pp.

Governor's Task Force on Mining and Minerals, 1997-8. Recommendations on aggregate issues in Annual Reports of these years. 24 pp.

Minnesota's Aggregate Resources - Road to the 21st Century, November, 1998. A report prepared by the Ad Hoc Aggregate Committee for the Aggregate Resources Task Force. 34 pp.

Key Points of 24 Presentations to the Aggregate Resources Task Force, November 17, 1998 to May 26, 1999. From Six Public Meetings. 8 pp.

Recommendations Excerpted from Testimony and Comments to the Aggregate Resources Task Force, November 17, 1998 to November 12, 1999. Recommendations organized by 13 topics.

Minnesota Mining Tax Guide, October, 1999. Minnesota Department of Revenue, pp. 45-46.

Twin Cities Metropolitan Area Urbanization and the Availability of Aggregates, January, 2000. Presentation to the Aggregate Resources Task Force. Marcel Jouseau, Metropolitan Council.

Managing and Protecting Aggregate Resources in Minnesota: A Position Paper, January, 2000. For the Aggregate Resources Task Force. The Aggregate Ready Mix Association of Minnesota. 18 pp.

Appendix E

Minnesota Statutes, section 84.94, Aggregate Planning and Protection

Subdivision 1. **Purpose.** It is the purpose of this section to protect aggregate resources; to promote orderly and environmentally sound development; to spread the burden of development; and to introduce aggregate resource protection into local comprehensive planning and land use controls.

Subdivision 2. **Definition.** For the purpose of this section, "municipality" means a home rule charter or statutory city, or a town.

Subdivision 3. **Identification and classification.** The department of natural resources, with the cooperation of the state geological survey, departments of transportation, and energy, and planning and development, outside of the metropolitan area as defined in section 473.121, shall conduct a program of identification and classification of potentially valuable publicly or privately owned aggregate lands located outside of urban or developed areas where aggregate mining is restricted, without consideration of their present land use. The program shall give priority to identification and classification in areas of the state where urbanization or other factors are or may be resulting in a loss of aggregate resources to development. Lands shall be classified as:

- (1) identified resources, being those containing significant aggregate deposits;
- (2) potential resources, being those containing potentially significant deposits and meriting further evaluation; or
- (3) sub-economic resources, being those containing no significant deposits.

As lands are classified, the information on the classification shall be transmitted to each of the departments and agencies named in this subdivision, to the planning authority of the appropriate county and municipality, and to the appropriate county engineer. The county planning authority shall notify owners of land classified under this subdivision by publication in a newspaper of general circulation in the county or by mail.

Subdivision 4. **Local action.** Each planning authority of a county or municipality receiving information pursuant to subdivision 3 shall consider the protection of identified and important aggregate resources in their land use decisions.

History: 1984 c 605 s 1

Appendix F

Minnesota Statutes, section 298.75, Aggregate material removal; production tax.

Subdivision 1. Definitions. Except as may otherwise be provided, the following words, when used in this section, shall have the meanings herein ascribed to them.

- (1) "Aggregate material" shall mean nonmetallic natural mineral aggregate including, but not limited to sand, silica sand, gravel, building stone, crushed rock, limestone, and granite. Aggregate material shall not include dimension stone and dimension granite. Aggregate material must be measured or weighed after it has been extracted from the pit, quarry, or deposit.
- (2) "Person" shall mean any individual, firm, partnership, corporation, organization, trustee, association, or other entity.
- (3) "Operator" shall mean any person engaged in the business of removing aggregate material from the surface or subsurface of the soil, for the purpose of sale, either directly or indirectly, through the use of the aggregate material in a marketable product or service.
- (4) "Extraction site" shall mean a pit, quarry, or deposit containing aggregate material and any contiguous property to the pit, quarry, or deposit which is used by the operator for stockpiling the aggregate material.
- (5) "Importer" shall mean any person who buys aggregate material produced from a county not listed in paragraph (6) or another state and causes the aggregate material to be imported into a county in this state which imposes a tax on aggregate material.
- (6) "County" shall mean the counties of Pope, Stearns, Benton, Sherburne, Carver, Scott, Dakota, Le Sueur, Kittson, Marshall, Pennington, Red Lake, Polk, Norman, Mahnomen, Clay, Becker, Carlton, St. Louis, Rock, Murray, Wilkin, Big Stone, Sibley, Hennepin, Washington, Chisago, and Ramsey.

Subdivision. 2. A county shall impose upon every importer and operator a production tax equal to ten cents per cubic yard or seven cents per ton of aggregate material removed except that the county board may decide not to impose this tax if it determines that in the previous year operators removed less than 20,000 tons or 14,000 cubic yards of aggregate material from that county. The tax shall be imposed on aggregate material produced in the county when the aggregate material is transported from the extraction site or sold. When aggregate material is stored in a stockpile within the state of Minnesota and a public highway, road or street is not used for transporting the aggregate material, the tax shall be imposed either when the aggregate material is sold, or when it is transported from the stockpile site, or when it is used from the

stockpile, whichever occurs first. The tax shall be imposed on an importer when the aggregate material is imported into the county that imposes the tax.

If the aggregate material is transported directly from the extraction site to a waterway, railway, or another mode of transportation other than a highway, road or street, the tax imposed by this section shall be apportioned equally between the county where the aggregate material is extracted and the county to which the aggregate material is originally transported. If that destination is not located in Minnesota, then the county where the aggregate material was extracted shall receive all of the proceeds of the tax.

Subdivision. 3. By the 14th day following the last day of each calendar quarter, every operator or importer shall make and file with the county auditor of the county in which the aggregate material is removed or imported, a correct report under oath, in such form and containing such information as the auditor shall require relative to the quantity of aggregate material removed or imported during the preceding calendar quarter. The report shall be accompanied by a remittance of the amount of tax due.

If any of the proceeds of the tax is to be apportioned as provided in subdivision 2, the operator or importer shall also include on the report any relevant information concerning the amount of aggregate material transported, the tax and the county of destination. The county auditor shall notify the county treasurer of the amount of such tax and the county to which it is due. The county treasurer shall remit the tax to the appropriate county within 30 days.

Subdivision. 4. If the county auditor has not received the report by the 15th day after the last day of each calendar quarter from the operator or importer as required by subdivision 3 or has received an erroneous report, the county auditor shall estimate the amount of tax due and notify the operator or importer by registered mail of the amount of tax so estimated within the next 14 days. An operator or importer may, within 30 days from the date of mailing the notice, and upon payment of the amount of tax determined to be due, file in the office of the county auditor a written statement of objections to the amount of taxes determined to be due. The statement of objections shall be deemed to be a petition within the meaning of chapter 278, and shall be governed by sections 278.02 to 278.13.

Subdivision. 5. Failure to file the report and submit payment shall result in a penalty of \$5 for each of the first 30 days, beginning on the 15th day after the last day of each calendar quarter, for which the report and payment is due and no statement of objection has been filed as provided in subdivision 4, and a penalty of \$10 for each subsequent day shall be assessed against the operator or importer who is required to file the report. The penalties imposed by this subdivision shall be collected as part of the tax and credited to the county revenue fund. If neither the report nor a statement of objection has been filed after more than 60 days have

elapsed from the date when the notice was sent, the operator or importer who is required to file the report is guilty of a misdemeanor.

Subdivision. 6. It is a misdemeanor for any operator or importer to remove aggregate material from a pit, quarry, or deposit or for any importer to import aggregate material unless all taxes due under this section for the previous reporting period have been paid or objections thereto have been filed pursuant to subdivision 4.

It is a misdemeanor for the operator or importer who is required to file a report to file a false report with intent to evade the tax.

Subdivision. 7. All money collected as taxes under this section shall be deposited in the county treasury and credited as follows, for expenditure by the county board:

- (a) Sixty percent to the county road and bridge fund for expenditure for the maintenance, construction and reconstruction of roads, highways and bridges;
- (b) Thirty percent to the road and bridge fund of those towns as determined by the county board and to the general fund or other designated fund of those cities as determined by the county board, to be expended for maintenance, construction and reconstruction of roads, highways and bridges; and
- (c) Ten percent to a special reserve fund which is hereby established, for expenditure for the restoration of abandoned pits, quarries, or deposits located upon public and tax forfeited lands within the county. If there are no abandoned pits, quarries or deposits located upon public or tax forfeited lands within the county, this portion of the tax shall be deposited in the county road and bridge fund for expenditure for the maintenance, construction and reconstruction of roads, highways and bridges.

Subdivision. 8. The county auditor or its duly authorized agent may examine records, including computer records, maintained by an importer or operator. The term "record" includes, but is not limited to, all accounts of an importer or operator. The county auditor must have access at all reasonable times to inspect and copy all business records related to an importer's or operator's collection, transportation, and disposal of aggregate to the extent necessary to ensure that all aggregate material production taxes required to be paid have been remitted to the county. The records must be maintained by the importer or operator for no less than six years.

HIST: 1980 c 607 art 19 s 5; 1Sp1981 c 1 art 10 s 17-19; 1982 c 523 art 13 s 1; 1983 c 342 art 14 s 1; 1984 c 652 s 1; 1986 c 403 s 1,2; 1993 c 375 art 9 s 41,42; 1995 c 264 art 16 s 15; 1996 c 471 art 13 s 15; 1997 c 231 art 8 s 12-14

Appendix G

A Legislative History of the Minnesota Aggregate Material Tax Statutes (Minnesota Statutes, section 298.75)

The first aggregate resources tax was enacted in 1961 when the Minnesota State Legislature passed a bill allowing Clay County to impose a tax on gravel removal in an amount not to exceed five cents per cubic yard of gravel. In 1965, the legislature allowed Norman County to impose a tax on the removal of gravel in an amount not to exceed five cents per cubic yard of gravel. Neither act defined the commodity to be taxed beyond the term *gravel*, nor did the acts specify how the tax revenue was to be used.

In 1977, the legislature approved a tax on the removal of gravel in an amount not to exceed ten cents per cubic yard for Kittson and Marshall counties and in an amount not to exceed five cents per cubic yard for Becker County. Both of the 1977 acts specified that the revenue was to be distributed 90% to the county road and bridge fund and 10% to a reserve fund for the restoration of abandoned gravel pits or deposits of gravel.

In 1979, the legislature approved a tax not to exceed ten cents per cubic yard for Polk and Norman counties. This legislation defined the term *gravel* as:

the natural product resulting from the reduction of rock by action of the elements, that is so graded that, of the portion passing a one inch sieve, not more than 20 percent, by weight, will pass the No. 200 sieve (American Society of Testing Materials).

The legislation also directed that the revenue generated from the tax shall be used only to maintain, construct, or reconstruct roads traveled by trucks hauling gravel or to restore abandoned gravel pits or deposits of gravel as determined by the county board.

In 1980, the occupation tax statute, Minnesota Statutes, chapter 298 was amended to allow any county to impose a tax not to exceed ten cents per cubic yard on gravel as determined by the county board. This law was codified as Minnesota Statutes, section 298.75 and titled the *Gravel Removal; Production Tax*. The act also specified that the tax revenue was to be distributed 60% to the county road and bridge fund for maintenance, construction and reconstruction of roads traveled by vehicles hauling gravel; 30% to the town road and bridge fund, for expenditure for maintenance construction and reconstruction of roads traveled by vehicles hauling gravel; and 10% to a special reserve fund for expenditure for restoration of abandoned gravel pits or deposits on county lands or tax forfeited lands.

In 1981, the gravel tax statute was amended to include sand and limestone within the definition of *gravel*.

In 1982, the gravel tax statute underwent a major overhaul. The title was changed to Aggregate Material Removal; Production Tax, thus expanding the scope of the commodity that falls under the tax. The term aggregate material is defined as non-metallic natural mineral aggregate including, but not limited to sand, silica sand, gravel, building stone, crushed rock, limestone and granite. Aggregate material shall not include dimension stone and dimension granite.

The 1982 amendment also set the tax rate to be ten cents per cubic yard or seven cents per ton of aggregate. If the county determined that less than 20,000 tons or 14,000 cubic yards of aggregate had been removed in the previous year, they could elect to not impose the tax. The amendment also validated tax collections made by Clay County after the imposition of a rate increase.

The 1982 amendment also changed the restriction that 60% of the tax be placed in the county road and bridge fund to be spent on roads and bridges traveled by gravel trucks and allowed the tax revenue to be spent generally on highways and bridges. The 30% allocation to the town road and bridge fund was changed to allow the county board to determine which towns or cities would receive funds for highways and bridges. The 10% in the reserve fund was made available for quarries and for use on public lands in addition to tax-forfeited lands. Language was added allowing the counties to deposit the funds allocated to the reserve fund into the county road and bridge fund if there were no abandoned pits or quarries on public or tax-forfeited lands.

The 1982 amendment also recognized that in the event that the aggregate material is transported by rail, barge, or pipeline, but not on roads, the tax should be split between the county of extraction and the first county where the material is transported to. If that county is not in Minnesota, the county where the aggregate is mined receives all of the proceeds.

In 1983, the statute was amended to specify that the 26 counties subject to the statute are Stearns, Benton, Sherburne, Wright, Carver, Scott, Dakota, Le Sueur, Kittson, Marshall, Pennington, Red Lake, Polk, Norman, Mahnomen, Clay, Becker, Wilkin, Traverse, Big Stone, Stevens, Pope, Anoka, Hennepin, Washington and Ramsey.

Importers were also defined as entities that bring aggregate from a county that is not subject to the tax into a county that is subject to the tax. Importers were also now subject to the tax.

In 1984, the statute was amended to remove Wright, Traverse, Stevens, Pope, and Anoka from the counties subject to the statute, and to add Sibley County. The amendment also exempts the state or political subdivisions from the tax in Benton and Stearns counties if the aggregate is purchased by contractors for use in projects for the state or the political subdivision, if approved by the county board.

In 1986 and in 1993, there were amendments to the reporting and payment procedures. In 1986 language was also added making it a misdemeanor to file a false report with the intent to evade the tax.

In 1996, Rock, Murray and Chisago counties were added to the list of counties subject to the statute.

In 1997, Pope, Carlton and St. Louis counties were added to the list of counties subject to the statute. If St. Louis County did not adopt the tax, then the following townships could impose the tax: Alden, Brevator, Canosia, Duluth, Fredenberg, Gnesen, Grand Lake, Industrial, Lakewood, Midway, Normanna, North Star, Rice Lake, and Solway. In this case, the township would retain all of the proceeds.