Minnesota Pollution Control Agency
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Celebrate MINNESOTA 1990

SEP 05 1989

Mr. John Shardlow
Planning Consultant
300 First Avenue North, Suite 210
Minneapolis, Minnesota 55401

Dear Mr. Shardlow:

RE: City of Burnsville Environmental Assessment Worksheet (EAW) McGowan Amphitheater, Waste Transfer Station, and Marina

The Minnesota Pollution Control Agency (MPCA) staff has reviewed the above referenced project. Based on the information available in the EAW and other documents in our files, MPCA staff has significant comments related to this proposed project. Considering the cumulative effects of the proposed McGowan Planned Unit Development (PUD) and the potential for significant environmental impact, the MPCA recommends that an Environmental Impact Statement (EIS) be prepared or, alternatively, that the EAW be revised to include information that will address the issues raised in this letter. The environmental review process and the resulting EAW and/or EIS documents should provide and reference available information applicable to the proposed project. A revised EAW should be renoticed for an additional comment period.

There are three components of the proposed project, an amphitheater, waste transfer station, and marina. Included in the development plans are a community park and trails with significant final landscaping features planned. All three components require environmental review. The amphitheater is in a mandatory EAW category because it exceeds a seating capacity of 5,000 people. The proposed design capacity is 19,500 which is close to the mandatory EIS category of 20,000. The proposed transfer station site was included in the Hennepin County Resource Recovery Project EIS which was found adequate by the Metropolitan Council on July 10, 1986. Without more specific information on this transfer station and the conclusions developed in the EIS, MPCA staff is unable to determine what additional potential environmental issues should be addressed. The MPCA recommends that the city of Burnsville further investigate the final transfer station plan and address issues that relate to significant changes, from the 1986 proposal, in the design and operation of this facility (e.g. design capacity, hours of operation, recycling activities at site, etc.). In addition, more information on the marina, which is in a later phase of the total site development, should be included in the environmental review documents as a part of this project.

Specific comments on issues related to the McGowan PUD project are listed in the categories below. The major concerns are related to three general areas:

* Final closure of the Freeway landfill and the development of an amphitheater on the site. Surface and ground water quality concerns, potential for methane/toxic gas release and effects on future users of the site, maintaining the integrity of the landfill cap, and how the plans for site development relate to the boundaries of refuse fill (e.g. construction and excavation near or through the refuse?). From the information provided in the EAW, it is undetermined where the boundaries of the refuse are.

* Potential noise impacts from traffic noise reaching levels above state standards and effects of neighboring evening quarry operations and resulting noise levels may significantly impact amphitheater concerts.

* Air quality concerns related to traffic emissions and the need for a detailed air quality analysis to be included in the EAW. Traffic impacts and measures that would ease projected traffic congestion as they relate to I-35W interchange with 113th street, existing vs proposed roadway improvements, quarry trucking and conflicts with other area evvents. Information in EAW does not provide adequate analysis of these potential impacts.

Comment Categories (based on information provided in the EAW)

Effects of Project on Successful Landfill Closure:

Superfund activities at the Freeway Landfill are being conducted by the landfill permittee (owner/operator), R.B. McGowan Co., Inc. (RBMCI), under a Request for Response Action issued by the MPCA on February 25, 1986. RBMCI is scheduled to complete the remedial investigation phase within approximately six months. The following phases are the feasibility study, to develop and evaluate a variety of remedial action alternatives, and the design and implementation of a remedial action plan.

The transfer station will need approved closure and post-closure plans before a permit can be issued. To date, RBMCI has not certified that the landfill has been closed nor has the MPCA approved of any certification. The final cover plan for the landfill was disapproved by the MPCA and negotiations for cover and closure are continuing. Also, post-closure, contingency action, and financial assurance plans, that would include monitoring of the landfill cap and ground water, need to be developed.

1) In section 4b-3, a site plan/map showing the relationship between features of the existing facility and the proposed McGowan PUD was not provided. Complete information on the extent of refuse filling (boundaries), monitoring wells, proposed or existing roads, sewer and water lines, buildings, and wetland location in relation to the PUD facilities is essential to evaluate how these significant features would interrelate with the PUD facilities. Also, for clarification, a discussion on depth of fill above bedrock should be included.

2) In section 5, the EAW states that "the city of Burnsville has reached the conclusion that the environmental issues surrounding this matter will have been adequately addressed when the required Remedial Investigation (RI) is completed and the landfill Closure Plan is completed and accepted by the MPCA". If the city did not base the conclusion on the entire Superfund process then this is partially incorrect. Instead of in just the "RI", additional information regarding environmental impacts may occur during any and all steps of the entire Superfund process: remedial investigation, feasibility study and remedial action.

Water Quality:

1) Section 17, item number 4 states that in the current condition the McGowan Quarry floor is as much as 20 feet above the water table. However, in the event of pumping cessation by the Kraemer Quarry, the McGowan Quarry floor would be under water. This or any possibility of water ponding in the proposed amphitheater stage area may require a National Pollutant Discharge Elimination System (NPDES)/ State Disposal System (SDS) permit to pump out this area.

2) Sections 16 and 17 and figures 17.1 and 17.2., appear to be based entirely on information presented in the remedial investigation report by Conestoga-Rovers and Associates Limited. This report has been previously reviewed by MPCA staff and significant comments and corrections to this report were made. Information from MPCA comment letters appear not to be reflected in these sections of the EAW. Corrections are as follows:

   a. Cross-Sections. MPCA stated in a July 28, 1988, letter to Richard McGowan from Barbara Gnabasik (staff), that the geologic contact between the Jordan Sandstone and the Prairie du Chien Group is not shown at the correct elevation. The contact needs to be corrected to an elevation that ranges from 540 to 560 feet. The Sandstone shown on the cross-sections is a bed within the Prairie du Chien Group.

   b. The depth of the top of the Jordan Sandstone needs to be revised to range from 150 to 170 feet instead of 75 to 120 feet below ground surface as stated in the EAW.

   c. The minimum thickness of overburden needs to be revised from three to zero feet. Currently, there is no overburden in the quarry. Also, the MPCA staff has documented through pictures that the landfill operator and one of the amphitheater promoters, RBMCI, deposited refuse directly on top of the bedrock.

   d. Previous correspondence between MPCA staff and RBMCI, indicated that the ground water flow direction in the Prairie du Chien Aquifer has changed since the RI report from Conestoga-Rovers and Associates Limited was submitted. The reasons for the changes are:

- The deepening of a Kraemer wash water well and the resulting effect of pumping this deepened well at high capacity on ground water flow patterns. Staff has requested information on static water level measurements as part of the RI in order to assess this effect.

- The head in the U.S. Salt Company artesian well was drawn down by the Kraemer sump dewatering. The U.S. Salt Company well is no longer artesian and a sumersible pump was installed. Static water measurements have also been requested on this well.

3) The RI also indicates that not all ground water under the Freeway Landfill discharged to the Kraemer sumps. In the vicinity of monitoring well WT-9 (northeast part of the landfill), the ground water discharges directly into the Minnesota River.

4) Table 16.1. An explanation should have been provided regarding which wells were abandoned according to the requirements of Minn. Rules ch. 4725, the Minnesota Water Well Construction Code. Additional information should be developed on attempts which were and will be made to locate the wells that were not abandoned in this manner.

5) Figure 16.5 is outdated. Figure 16.1 is more accurate with regard to current monitoring locations. Please note that monitoring wells WT-7 and WT-8 are dry as well as surface water sampling location SW-7. Also, two nests of two wells may be installed northeast of SW-6 and west of WT11B and at WT-8 as part of the remaining RI work. One well in the nest will be open to the Prairie du Chien Aquifer and the other well in the nest will be open to the top of the Jordan Sandstone.

6) The plans indicate some of the proposed facility construction may involve work in refuse. If this occurs the amount of leachate and concentration will likely expand. Minn. Rules pt. 7050.0180 establishes a nondegradation policy for all waters in the state. Should an increase in volume or concentration meet the significant test, as presented therein, a nondegradation analysis would be required. The developer would then be required to demonstrate the social and economic benefits of this expanded discharge and may be required to pretreat the water prior to discharge. Previous landfill closure order submittals to MPCA indicate that sewer and water lines do not go through refuse. If such information is current, it should be included or referenced in the environmental review documents.

7) Excavation of the marina in proximity of the refuse will likely cause leachate from the landfill to seep into the marina. Since the marina would be in a backwater situation, it is unlikely that the MPCA would allow any dilution factor to apply to the leachate. This means that the ground water entering the marina would have to meet water quality standards. The historical quality of the ground water below the site indicates some kind

of mitigation may be necessary to meet the standards. The amount of leachate that will discharge through the unsaturated zone to the marina needs to be addressed.

8) The Kraemer sumps have caused a temporary drawdown of the water table from the Freeway Landfill. When the Kraemer pumpout ceases, two things will happen that may affect the project. First, the quarry will fill with ground water. Second, these consequences may affect the water quality situation at the marina. Although Kraemer has indicated intentions to continue operations for at least the next 40 years, MPCA believes further investigation of water quality impacts at the site should examine two scenarios: existing and post-Kraemer pumpout and the effects on leachate flow. These scenarios were requested to be examined as part of the remaining remedial investigation/feasibility study (RI/FS) work.

9) Section 11. A NPDES/SDS permit should be added to the list of permits that may be required from the MPCA. The permit would address discharge of surface water runoff and runoff from retention ponds to the Minnesota River. Monitoring of the sewer water may also be required if the water is allowed to be discharged into the Minnesota River. As mentioned in comment one of the ground water category, a NPDES/SDS permit may also be needed for abandoned quarry pump-out. In addition, a Clean Water Act Section 401 permit from the MPCA, in conjunction with the Corps of Engineers Section 404 permit, should be listed.

10) Section 13. MPCA staff has been verbally informed that businesses south of the Kraemer Quarry were all serviced with city water as a drinking water supply. However, MPCA staff has not received adequate documentation from RBMCI or the city of Burnsville that this is the case. The city or RBMCI should reference or provide copies of documentation of this issue in the environmental review documents. Discussion of this issue should include the water supply wells on the eastern part of the Kraemer Quarry property; for example, the well at Bituminous Roadways, Inc.

11) Section 15. In order to avoid making a misleading statement and showing an inaccurate Figure 15.1, quarried areas where the Prairie du Chien Group is exposed need to be mapped as such.

12) In section 17, paragraph two, in order to avoid a misleading statement, it should be stated that the ground water which is discharged to the Kraemer Quarry is discharged from the Kraemer Quarry by pumping, ultimately into the Minnesota River.

13) Sections 22 and 29. Numerous questions can be raised concerning the potential effects of runoff management systems. The separation distances between the location of the sedimentation detention ponds and boundaries of

solid waste filling needs to be defined. Surface water detention ponds may not be placed on or directly adjoining solid waste due to the potential for increased leachate production. The facilities should be designed to promote surface water runoff and not allow it to infiltrate the refuse-filled portion of the landfill (i.e. no runoff ponds should be constructed on the refuse filled portion of the site).

14) The EAW did not discuss whether the sewer and water lines will be placed in the solid waste. Information pertaining to the boundaries of the solid waste and locations of the sewer and water lines should be developed in greater detail to allow an in-depth analysis of potential effects. Also, the developer should be able to demonstrate that the sewer pipes will be installed in stable material since subsidence in the garbage is a possibility.

15) A gravel surface on most of the parking lot may provide insufficient infiltration protection for the landfill cover. This will probably be addressed as part of the landfill closure plan, but could result in a design change.

16) Section 22. Regarding surface and storm water runoff, the storm sewer system should be designed for greater than a five year rainfall event. The basis of this five year event (i.e. any human safety impacts related to design) should be discussed. Also, the environmental review documents should contain more information on the storm water and surface water runoff plans and include the sewer system and interceptor plans. A sewer extension permit will be required.

Noise:

1) Information provided indicates that traffic noise levels for the proposed project are above standards by three to six dBA. Further analysis will be necessary to determine if a variance will be required.

2) The effects of the rock crushing activities on the concert goers are of primary concern. Quarrying activities, both rock crushing and trucking, will occur during the hours scheduled for amphitheater concerts. The noise of trucking may add to traffic noise levels and rock crushing would likely be detectable during concerts. Background levels of 35 and 40 dBA are necessary for symphonic-type concerts. With quarry operations, such levels would likely not be met. Further analysis with recommendations on how to maintain acoustical integrity during performances should be conducted.

Air Quality:

1) Decomposition in the landfill does and will continue to result in the release of methane and other toxic gases. Currently, MPCA does not know

the toxic constituents or amounts, the health and related impacts on amphitheater, transfer station, and marina users, or remedial action which may be necessary to alleviate these impacts. Previous tests were inadequate and this issue will be addressed and further evaluated in the superfund process.

2) The transfer station will be sited on buried refuse and will be enclosed on three sides. Being semi-enclosed in a low area there is concern that toxic gases may accumulate in this area. No air monitoring program for toxic gases is proposed or presented beyond a promise of some CO measurements in Section 23. An air monitoring program should be developed and implemented for toxic gases as a part of the RI/FS and transfer station permit application.

3) Indirect Source Permit (ISP). There was no detailed air quality analysis included in the EAW. However, the EAW does mention that more detailed carbon monoxide analysis will be conducted for the ISP application. An air quality analysis should have been included in the EAW since it is a more widely circulated document than the ISP application. When a project is large enough to require an ISP, the environmental review process should allow for public input on potential impacts. A related consideration is that closure plans for the landfill must be approved before an ISP is issued. No project construction can begin prior to issuance of the ISP.

Traffic:

1) Traffic Analysis. To mitigate the impacts of the development traffic on Interstate (I)-35W, the Division of Air Quality staff has stressed with developers, the need to schedule the amphitheater events at nighttime to avoid traffic conflict during the p.m. peak hours on I-35W. Despite this, MPCA staff learned in a meeting with project consultants that some daytime events would be scheduled during the weekdays and weekends, but no documentation is included in the EAW to indicate the event times. In order to avoid worsening the severity of existing traffic congestion on I-35W during the p.m. peak periods, the EAW should provide an additional documentation on and analysis of the daytime activities including event times, types, and sizes of the events.

2) The 3.4 vehicle occupancy rate assumed in the EAW for crowd levels near 18,000 patrons appears to be overestimated. A diligent effort was made in the EAW to incorporate the results of two traffic studies conducted by Barton-Aschman Associates, Inc., for similar amphitheaters. Unfortunately, the studies cite cases from Detroit, Michigan, and Highland Park, Illinois. Auto occupancy depends on variables such as location and distance of the facility, availability of parking on the site, types of concerts which typically result in capacity crowds, and the likelihood of multiple couples

and groups attending these types of concerts. Therefore, what occurred in Detroit and Highland Park might not necessarily be applicable to Burnsville. MPCA staff believes that a realistic auto occupancy rate in this case should be 3.0. The auto occupancy rate confirmed by organizers of various concerts with similar attendance levels at the Metropolitan Center in Bloomington is 3.0. This is a more reasonable rate for the Twin Cities metropolitan area.

3) The EAW assumes that 25 percent of the patrons will arrive between 6:00 and 7:00 p.m., 60 percent between 7:00 and 8:00 p.m., and 15 percent after the start of the concert at 8:00 p.m. There was no explanation on how the percentages were derived. As part of the traffic mitigation measures, the developer is planning to not open the gates until after 6:00 p.m. This measure may not be very effective in deterring the majority of the patrons from arriving at the site prior to 6:00 p.m. Since a vast majority of these patrons are expected to be general admission ticket-holders, they would come early to obtain good seats on the berm. Thus, even though the 7:00 - 8:00 p.m. time period was used as the design peak for patron arrival, it is likely that as attendance approaches the 18,000 design level, the percentage of general admission patrons arriving prior to or during the 6:00 - 7:00 p.m. time period is expected to be much higher than what is assumed in the EAW. This additional traffic will put added pressure on I-35W, which is already operating near or at capacity. Arrival time periods and potential impacts on traffic, should be examined further.

4) The capacity analysis indicates that the I-35W interchange with 113th Street will be operating at a level of service F with the existing geometry, unless an interchange modification is implemented to provide a better access to the site. Measures that would ease the projected traffic congestion at that interchange should be examined further.

5) Improvements to part of County Road 5 and Embassy Road were assumed in the EAW as viable roadways that would assist in providing acceptable traffic operation to the facility. As such, traffic assignments as well as capacity calculations were based on the premise that improvements to these roadways were completed and were operating as functional facilities. The EAW does not discuss where funding would be derived for these roadway improvements. Legally binding commitments to funding for the assumed roadway improvements would be needed prior to the MPCA's approval of the ISP application.

6) A significant issue not evaluated in the EAW, which would have potential traffic impacts on the I-35W interchange with 113th Street, is the traffic generated by the adjacent Kraemer operations. The staff learned that over 600 heavy truck trips are being made daily. It should also be noted that one heavy truck is believed to be the equivalent of four cars, in terms

of the length of roadway used. The facility operates six days a week from May through October, from 6:00 a.m to 11:00 p.m. Monday through Friday, and 6:00 a.m to 4 p.m. on Saturday. MPCA staff is concerned that this additional traffic will significantly contribute to the existing weekday peak hour traffic on I-35W and 113th Street. The trips from this gravel operation should be included in the traffic analysis.

As stated, the issues listed in this letter are considerable and it is the position of the MPCA that additional environmental review be conducted on the proposed McGowan PUD project. MPCA staff is willing to meet and further discuss these issues. If you have any questions, please contact Kevin Kain of my staff at 296-7432.

Sincerely,

for Barbara Lindsay Sims
Deputy

Gerald L. Willet
Commissioner

GLW:pnk

cc: Greg Konat, Community Development Director, Burnsville
Mark McGowan, McGowan Development Corp.
Steve Schwanke, Metropolitan Council
The Honorable Daniel McElroy, Mayor, City of Burnsville