

**Proposed Shooting Star Resort and Casino
Wastewater Summary
Star Lake, Minnesota**

August 7, 2017

The wastewater at the Star Lake Facility will be received from both the water treatment plant backwash and reject water and the wastewater from the gaming, restaurant, and hotel facilities. The wastewater treatment facility will be designed and constructed to meet MPCA requirements. The proposed wastewater treatment facility design plans and specifications will be submitted along with the geotechnical investigations and the wastewater (NPDES/SDS) permit application to the MPCA. The MPCA will review the plans and specifications for approval in conjunction with the permit application. The permit application has a public comment period and typically takes no less than six months to receive an approved permit with the required processes. This includes MPCA reviewing the treatment process to verify that no degradation of water quality occurs. During the EAW process we have had in-depth correspondence with the MPCA on the different alternatives available for wastewater treatment at the Star Lake site. The selected alternative was a result of the in-depth correspondence and geotechnical investigations. Correspondence with MPCA included the irrigation rate of 12" per year, which is a lesser rate than nearby systems that irrigate. MPCA Steve Stark (a Hydrologist) and Vinod Sathyaseelan (the Area Engineer) were contacted regularly and provided with all pertinent information, drawings, preliminary data and proposed concept designs in order to verify concept design approval. This includes groundwater elevation, topography of existing site, proximity to wetlands, water bodies and residences.

The wastewater from the facilities will be pumped directly into concrete aeration basins where primary treatment will occur, and following the concrete aeration basins will be a much larger aerated treatment and storage cell constructed with earthen dikes and a PVC liner above the water table as required by MPCA. The cells will include the MPCA required freeboard of three feet so as to ensure no overflows. There should be no noticeable septic odors from the wastewater cells with the aeration system operating. The system will include a standby generator and redundancy so there should be a very limited chance the aeration system will be out of service. These cells will be tested for seepage prior to any wastewater being allowed in them. MPCA will review the results of the seepage tests prior to allowing operation. MPCA will also conduct construction inspections at construction milestones to verify compliance prior to allowing the next stage of construction to continue. After treatment occurs in the aeration cells there will be a small settling area prior to the treated wastewater being pumped through an irrigation system onto crop vegetation. At the proposed rate of irrigation it is expected the crop vegetation will utilize the nutrients placed by irrigation and no contamination to the lake or groundwater will occur. The irrigation system will have the ability to irrigate an irregular shaped area, and controls to turn nozzles and spray guns on and off whenever needed to avoid wetland or other sensitive areas.

A similar system to look at for comparison of treatment is the city of Rothsay. Rothsay utilizes aerated cells for wastewater treatment and discharges treated wastewater to surface water. The proposed Star Lake facility will treat wastewater further than Rothsay by irrigating the treated wastewater for the nutrients to be utilized by vegetation rather than discharging to surface water.