Renville County Mining Reclamation Plan

The Renville County Comprehensive Plan recognizes the need to "allow orderly development of mineral resources through sound mining practices, mitigation of adverse environmental impacts, and planning for the re-use of sites." One strategy that the Comprehensive Plan lists to achieve this goal is to require detailed operations and **reclamation plans**. Proper reclamation of mining sites is important for protecting and maintaining public health and safety, environmental quality, and natural and scenic beauty.

The Renville County Land Use Ordinance requires that reclamation be planned carefully and implemented in an **ongoing** fashion, with areas that have been exhausted of minerals being reclaimed as the mining operation moves on. A helpful resource for developing mining operation and reclamation plans is <u>A Handbook for Reclaiming Sand and Gravel Pits in Minnesota</u> published by the Minnesota DNR. A copy of the publication can be secured through the Renville County Environmental Services Department, or the Renville County Soil and Water Conservation District (SWCD).

The following information must be addressed to comply with the Renville County Land Use Ordinance standards for land reclamation. Upon completion, the reclamation plan must be reviewed and approved by the Renville County SWCD prior to its submittal to the Renville Environmental Service Department.

- 1) Describe the initial condition of the proposed mining site (e.g., current land use, water bodies, drainage features, etc.).
- 2) Describe the proposed reclamation process including planned end use (agricultural use, wildlife area, wetland, man-made lake, recreational area, residential development).
- 3) Describe anticipated topography, water impoundments, artificial lakes, and future land use of the site.

4)	Describe plans for the disposal of surface structures, roads, and related facilities after completion of the mining operation.					
5)	Describe the methods proposed for the disposal or reclamation of oversize and undersize mined materials.					
6)	Describe or attach a copy of a seeding plan that includes type and depth of top soil, methods of seedbed preparation, seed mixtures, seeding rates, mulching, and other techniques needed to accomplish site stabilization.					
7)	Describe any alteration of natural stormwater drainage following final grading of the site.					
8)	Describe all long-term maintenance needed to support the reclamation plan.					
9)	Provide an estimate of the reclamation cost of each phase of the project, or the entire site if phasing is not planned.					
10) Provide a reclamation plan map, to scale, indicating the following:						
	a. Final grade of proposed site showing elevations and contour lines at 10-foot intervals.					
	b. Location of water features, agricultural, wildlife and open areas, and species of vegetation					
	or seed mixture to be replanted.					
	c. Reclamation staging plan including a proposed timeline for each phase of reclamation.					
	d. Intended use of the reclaimed site.					
	e. Limits of all permanent water areas.					
	f. Proposed areas of future development.					

- 11) All reclamation plans shall address the following questions:
 - a. Is fill proposed for achieving desired final grade? (Note: All fill must be inspected and certified as clean and free from volatile organic compounds and heavy metals.)
 - b. Will any erosion control practices be needed for areas reclaimed to farmland (e.g., terraces, sediment basins, gully control, grass waterways, etc.)?
 - c. What is maximum proposed slope on the reclaimed area? (Note: Maximum allowable = 4:1.)
 - d. What is the final elevation of any area planned for building development? (Note: Final elevation must be at least 10-feet above the normal ordinary groundwater level.)
 - e. What seed mixture is proposed for areas to be reclaimed to prairie? (Note: Appropriate native mixes are required.)
 - f. What species and planting densities are proposed for planned wooded areas? (Note: See Renville County SWCD office for recommendations.)
 - g. What type and depth of soil will be used for re-spreading over the area to be reclaimed?

 (Note: Topsoil shall be of a quality equal to topsoils of land areas immediately adjacent to the reclaimed area and shall be a minimum of four inches in depth.)
 - h. What is the distance to any natural water body?
- 12) Reclamation plans resulting in the accumulation of substantial water areas shall address the following additional questions:
 - a. What is the anticipated depth of any permanent water area at times of lowest water conditions? (Note: If a water depth of less than three feet is proposed for any permanent water area, you must attach a Renville County SWCD approved plan for creation of a wetland or marsh.)
 - b. What is the maximum proposed slope to the water line? (Note: Maximum allowable =

4:1.)

- c. What is the maximum proposed slope of permanent water areas? (Note: Maximum allowable = 3:1 for the first 30 feet from shoreline.)
- d. Are any proposed permanent water areas to be located adjacent to existing or proposed farmland? (Note: All permanent water areas must be buffered from farmland by a minimum of 100 feet of grass buffer.)
- 13) Additional Comments:

The following signatures are required. The contractor's signature certifies a commitment to follow the approved plan, recognizing that adjustments to the plan may need to be made *and approved* over time to reflect on-site conditions. The landowner(s) signature(s) certifies approval of the content and implementation of the plan. The agency signatures certify approval of the plan as presented, recognizing that adjustments to the plan may need to be made *and approved* over time to reflect on-site conditions.

Contractor:	Date:
Landowner:	Date:
Renville SWCD:	Date:
Renville ES:	Date: