

SECTION 27 ~ MINERAL EXTRACTION AND MINING

0110.2701 PURPOSE

The purpose of this section on mineral extraction is to (i) protect natural landscapes from excessive excavation and mining activity, (ii) protect water resources aquifers, streams, and rivers from excessive contamination and appropriation, (iii) minimize soil erosion, (iv) protect and preserve agricultural land and farming activity, (v) monitor and control the extraction of natural mineral, and material resources, (vi) provide for the excavation and mining of minerals, and materials used for road maintenance, farming, and construction, (vii) minimize land use conflicts, (viii) minimize or prevent adverse public infrastructure impacts, (ix) preserve the natural beauty and aesthetic values, including scenic byways, of the County, establish recreational sites, and provide for the health, safety and general welfare of the citizens of the County.

0110.2702 JURISDICTION

Any excavation, quarrying or removal of commercial and construction minerals shall be conducted subject to the requirements of this Section.

0110.2703 DEFINITIONS

For the purpose of this Section certain terms and words are defined as follows:

Subd. 1. Mineral Extraction and Mining. The terms mineral extraction and mining includes but are not limited to (i) any process or method of digging, excavating, mining, drilling, blasting, tunneling, dredging, stripping, or removing minerals or materials from the land surface or underground, (ii) the processing, washing, cleaning, screening, filtering, sorting, stockpiling, trans-loading, and storage of all excavated or mined minerals and materials, and (iii) the removal of extracted minerals and excavated materials. The terms excavation and mining apply to all activities occurring at excavation or mining sites, including sites identified as quarries and sand pits.

Subd. 2. Commercial and Construction Minerals. Includes sand, stone, soil and shale. These minerals shall be produced and used for construction purposes (i.e., asphalt or concrete roads, concrete, asphalt, building or dimension stone, railroad ballast, decorative stone, retaining walls, revetment stone, roofing granules, fill material and other similar uses) or used for agricultural uses such as ag lime and bedding sand for livestock operations. Sand or crushed stone may be produced and used for other purposes such as salt and sand for icy roads, water filtration systems in septic systems, landfills, mortar sand and sand for sand blasting. For the purposes of this section, ag lime and lime screenings are considered aggregate.

Sand is material consisting of coarse grained soils where greater than 50% of the material is retained on No. 200 (0.075mm) sieve and greater than or equal to 50% of the coarse fraction passes the No. 10 (2.00 mm) sieve.

Aggregate is material consisting of coarse grained soils where greater than 50% of the material is retained on No. 200 (0.075mm) sieve and greater than 50% of the coarse fraction is retained on

the No. 10 (2.00 mm) sieve.

Subd. 3. Industrial Minerals, Metals, Gases, and Fluids. Minerals such as graphite, diamonds, gemstones, kaolin, and other similar minerals; all petroleum and petroleum-based gases, and fluids; all metallic minerals, including nickel, tin, silver, titanium, vanadium, cadmium, molybdenum, chromium, manganese, cobalt, copper, zirconium, beryllium, thorium, uranium, aluminum, radium, tantalum, niobium, gold, lead, platinum, or palladium. Sand and quartz mined in excess of the volume limits of those stated in 0110.2708 Subd. 4.

Subd. 4. Operator. Any owner or lessee of mineral rights or land or the person/company in charge of or engaged in or preparing to engage in mining operations.

Subd. 5. Processing. On-site manufacturing or other operations that may involve the use of equipment for the crushing, screening, separation, washing, compounding, mixing or blending of mineral aggregates or nonmetallic resources obtained by extraction from the mining site. Only State and Federally-approved chemicals and procedures shall be used in aggregate mines. No chemicals shall be used in sand mines.

Subd. 6. Recycled Material. Construction aggregate, asphalt, and/or concrete pavement that is processed at a mining site and used off site as construction material.

Subd. 7. New Excavation Site. To be classified as a new excavation or mining site, the site must not have a current valid Minerals Interim Use Permit or Conditional Use Permit to operate.

Subd. 8. Existing Excavation or Mining Site. To be classified as an existing minerals excavation or mining site, the property owner and/or mining operator must (i) have a current valid Conditional or Interim Use Permit to excavate and mine, or (ii) have valid legal nonconforming rights to continue to utilize the property for said purposes, and (iii) must comply with biennial report, registration and fee requirements.

0110.2704 INTERIM USE PERMIT

Subd. 1. Short Term Mining Operation. No person shall excavate or mine, dig, enlarge, make, maintain, process, or allow to be maintained, or allow the use of, any open pit, rock quarry, sand pit excavation or mine on any property as a short term mining operation without first applying for and obtaining from the County an Interim Use Permit pursuant to Section 7 of the Houston County Zoning Ordinance. As a condition of the Interim Use Permit, the operator must comply with the following performance standards:

1. Maximum duration of mining operation shall not exceed 3 years.
2. Maximum volume of material mined shall not exceed 10,000 cubic yards per year.

A complete application for an Interim Use Permit shall include the following:

1. An “existing conditions map” that shows conditions at the mine site and at least 200 feet beyond the mine boundary.
2. A reclamation plan.
3. A description of mining activities and estimated volumes.
4. A land description of the area to be mined.

A short term mining operation is conditioned such that it will be a “one-time only” permit where the material mined is earmarked for a nearby construction project. Any proposal that exceeds 10,000 cubic yards per year will require the issuance of a conditional use permit as stated in this section.

0110.2705 NONCONFORMING MINES. All legal, nonconforming mining and extraction operations currently operating within the unincorporated areas of Houston County without a Conditional Use Permit as of the effective date of this chapter may continue provided the mining and extraction use does not expand beyond the boundaries of the legally described parcel in which the mining operation was established prior to the time it became nonconforming as filed in the office of the County Zoning Office. Legal, nonconforming mining and extraction operations may not expand in the nature of the use. For purposes of this Section, “expansion” means any increase in a dimension, size, area, volume of the mine site. Expansion also includes any placement of a structure or part thereof where none existed before, any new trans-loading site, any addition of a site feature that would allow the land to be more intensely developed, any move of operations to a new location on the property outside the described mine boundary, or any increase in intensity of use when compared to the original nature, function or purpose of the nonconforming use, the hours of operation, traffic, parking, noise, exterior storage, signs, exterior lighting, types of goods or services offered, odors, area of operation, number of employees, and other factors deemed relevant by the County. Legal nonconforming mining and extraction operations that fail to meet biennial re-registration requirements lose any rights as nonconformities to continue operations. All legal, nonconforming, mining and extraction operations shall comply with only the density, volume, size and land reclamation standards as set forth in Sections 0110.2708 and 0110.2710 hereof. All mining and extraction operations currently operating in Houston County and legally commenced prior to the adoption of this chapter shall submit a reclamation plan completed in conformance with this chapter to the Zoning Administrator for review and approval. Any existing legal, nonconforming mining and extraction operation determined by the Zoning Department to pose an environmental hazard or negative impact on the health, safety, or welfare of the residents of the County; or that fails to comply with the density, volume, size and reclamation standards set forth in this chapter shall lose non-conforming status.

0110.2706 CONDITIONAL USE PERMIT

Subd. 1. Mineral Extraction and Mining. Except under the conditions of an Interim Use Permit, no person shall excavate or mine, dig, enlarge, make, maintain, process, or allow to be maintained, or allow the use of, any open pit, rock quarry, sand pit excavation or mine on any property without first applying for and obtaining from the County a Mineral Extraction Conditional Use Permit, pursuant to Section 6 of the Houston County Zoning Ordinance. As a condition of the Conditional Use Permit, the operator must comply with the terms, fee schedule, and conditions other local road authorities (such as adjacent or nearby counties, cities or townships) may have in place concerning road impact fees for affected roads on the operator’s haul route. A copy of any required County “Road Use and Maintenance Agreement(s)” with said road authorities must be in place prior to the start of operations. Houston County will forward a copy of the weight/amount loaded per truck, as reported by the operator quarterly, to local road authorities who have road impact fees related to the transportation of material extracted for commercial or construction use.

Subd. 2. Road Use and Maintenance Agreement. Except for temporary uses associated with road construction, a mining proposal with the following traffic or land use characteristics shall be accompanied by a “Road Use and Maintenance Agreement” prepared consistent with the provisions of this section, unless the requirement is waived by the relevant local governing unit (LGU) road authority. No application shall be considered complete unless accompanied by such a report, if required. A “Road Use and Maintenance Agreement” is required under the following circumstances: Uses that generate more than **30** heavy vehicle trips per day according to the Institute of Transportation Engineer’s (ITE) most recent “Trip Generation Manual” or **30** heavy vehicle trips per day based on the best available data. Where the development proposed cannot be adequately described by the ITE, trip generation shall be estimated by the mine operator based on data collected from other developments of similar size and scope, with a minimum of three independent data samples provided.

Subd. 3. Jurisdictional Responsibility. The engineer of the road authority for the access road shall have the final authority for determining the need and adequacy of the Road Use and Maintenance Agreement except that:

- i. If a County road is part of any of the identified haul routes, the County Engineer shall have the final authority for determining the need and adequacy of the Road Use and Maintenance Agreement for that part of the haul route and;
- ii. Any road authority having authority over a portion of a haul route may require a road use agreement covering that part of the haul route, whether or not that road authority has jurisdictional responsibility for determining the need for and adequacy of the Road Use and Maintenance Agreement.

Subd. 4. Waiver of Road Use and Maintenance Agreement. The requirement for a Road Use and Maintenance Agreement may be waived by the Road Authority Representative with responsibility for the public access road, after consulting with Road Authority Representatives with roads comprising any designated haul routes (the County Highway Engineer for affected County roads in Houston County, the County Highway Engineer for affected County roads in adjacent counties, the City Engineer for an affected City, the District Engineer of MN/DOT District 6 for State or Federal Highways, or the Town Board or its Designee for Township roads) if it is determined;

- i. That a Road Use and Maintenance Agreement is not necessary to determine needed road improvements on access roads or the portions of haul routes under their jurisdiction, and that for access roads and the intersections along haul routes under their jurisdiction, no unsafe or hazardous conditions will be created by the development as proposed; or
- ii. That the applicant has provided performance bonds or other guarantees providing adequate assurance that anticipated damage to roads can be mitigated and unsafe conditions can be mitigated or avoided; or
- iii. That the use is a seasonal use with peak daily trip generation that exceeds the thresholds in Subd. 2 but whose annual average trip generation does not pose a risk to the road infrastructure or traffic safety of the facility and adjacent road network based on evaluation of the cumulative pavement impact expected and geometric design of the roadway.

This waiver shall not preempt the authority of MN/DOT to require a traffic study under the requirements of the State Access Management Guidelines on any state or federal highway nor the authority of an affected jurisdiction to require a traffic study under an applicable access

management ordinance.

Subd. 5. Complete Application. No application for a development identified as requiring a Road Use and Maintenance Agreement will be determined to be complete unless it is accompanied by an appropriate traffic study unless a waiver has been granted by the road authority Engineer after consultation with affected Road Authority Representatives.

Subd. 6. Prior Conditional Use Permits. Mining and extraction operations, operating with a valid Conditional Use Permit issued by Houston County prior to the adoption of this chapter, which remain in compliance with the terms and conditions of the Conditional Use Permit, shall be permitted to continue to operate. Any expansion or change in the operation shall require a new Conditional Use Permit.

Subd. 7. Exceptions. The following activities do not require an Interim or Conditional Use Permit:

- 1) Excavation of earth necessary for the construction of a structure permitted by the Zoning Office.
- 2) Impounding of water in an open pit or pond designed for agricultural purposes or for storm water control purposes unrelated to mining activity.
- 3) Excavation of earth for essential services or public infrastructure.
- 4) Excavation used for personal or farming practices on the same property up to one (1) acre.
- 5) Any water used for residential or agricultural use.
- 6) Stockpiling, storage, and transportation of sand, salt, and/or gravel by state, county, and/or township entities.
- 7) Excavation, stockpiling, and transportation of dredge spoils removed from public waters.

Subd. 8. Activities Included in a Conditional Use Permit. A Conditional Use Permit shall specify the permitted activities. A Conditional Use Permit for a commercial and/or construction excavation or mining site may permit the related activities of overburden removal, soil boring, blasting, processing, materials removal, stockpiling, trans-loading and hauling. Separate rock crushing activities or operation of asphalt and concrete plants not located on the site of an existing rock quarry or sand pit shall require a separate Conditional Use Permit. A separate County Temporary Use Permit is required for asphalt or concrete plants located on the site provided the plants meet all federal, state, and local rules and regulations per Section 5.

Subd. 9. Prohibited Activities.

- 1) The excavation and mining of any commercial and construction minerals that causes or results in any chemicals, metals, minerals or materials leaching, spilling or flowing into any water resource, including aquifers, water tables, rivers, springs, streams or other underground or surface waters that exceeds state and federal limitations or requirements.
- 2) The excavation and mining of any commercial and construction minerals using any process or method that injects, drills with, applies or uses any unapproved chemical or toxic substance.
- 3) Stockpiling of toxic waste materials.
- 4) The excavation and mining of any commercial and construction minerals underground using tunneling, augering, shafting, hydraulic dredging, or any similar methods.

- 5) Any washing of mined commercial and construction minerals with the use of chemicals and procedures not approved by State and Federal regulations.
- 6) Any commercial and construction minerals brought back to the site that have been processed with chemicals, except those recyclable materials that are destined for use off site as construction materials. Any haul back material is subject to testing at the owner and/or operators expense.
- 7) Any designated processing or trans loading site for sand designated for uses other than construction or agricultural purposes.
- 8) Any mining of industrial minerals, metals, fluids, and gases as defined by this section.

Subd. 10. Application for Permit. Any person, firm, or corporation desiring to commence or expand the mining and processing of commercial and construction minerals shall make written application for a Conditional Use Permit to the Zoning Administrator. Application for such permit shall be made upon a form furnished by the Zoning Administrator. The form shall contain the following items:

- 1) Applicant's true name and address, and a statement that the applicant has the right to ownership or lease to mine and to reclaim that land described.
- 2) An exact legal description of the tract, or tracts of land along with a legal survey and the number of acres to be mined by the applicant.
- 3) An existing conditions map as described in Part 0110.2605 below.
- 4) An operation plan and map, as described in Parts 0110.2707 below.
- 5) A reclamation plan and map as described in Part 0110.2608 below.
- 6) A full and adequate description of all phases of the proposed operation to include an estimate of duration of the mining operation.
- 7) Any other information requested by the Planning Commission or governing body.
- 8) Fully executed County "Road Use and Maintenance Agreement"(s) or prior approval by all LGU's having jurisdiction over roadways within the planned haul route.
- 9) The identity of each owner and operator involved with the proposed operation.

Subd. 11. Environmental Review. The Zoning Administrator or County Board may require an applicant to submit an environmental assessment worksheet (EAW), deemed necessary to protect the general health, safety, and welfare of the public or deemed necessary to determine the adverse impact or effects of the activity. To ensure that adequate information is included in the environmental review, the County Board may hire a consultant to review an EAW or EIS and the County shall charge all direct costs to the project proposer including third party review.

0110.2707 EXISTING CONDITIONS MAP

Subd. 1. Information Required on the Existing Conditions Map. The existing conditions map shall be drawn at a scale of one (1) inch to one hundred (100) feet and shall show an outline of the tract to be mined and the adjacent area within five hundred (500) feet to the proposed excavation. The map shall include the following:

- 1) Existing topographical features at ten (10) foot contour intervals.
- 2) Location of wetlands, water courses, drainage systems and impounded waters.
- 3) Location of existing wooded areas and cultivated fields.
- 4) Location of existing structures and water wells.

- 5) Location and names of existing roads, trails, railroads, utility rights-of-way, threatened and endangered biological species and any other cultural, historic, or archeological features.
- 6) All residential dwellings and cabins located within 2640 ft. of the perimeter of the proposed mine on an attached map.
- 7) The surveyed property line and/or mine boundary to be completed by a licensed land surveyor.
- 8) Easements of record affecting the property.
- 9) A geology map that includes the following:
 - i. geologic units and contacts;
 - ii. depth to bedrock (if applicable);
 - iii. confining units (clays, shale, sandstone, etc.);
 - iv. fracture patterns and traces;
 - v. location of any known caves, joints, fractures, sinkholes, stream sinks, and springs.
 - vi. documentation of existing soil types via soil boring logs.
- 10) A hydrology map that includes the following:
 - i. drainage patterns and permanent water areas within one mile of property lines;
 - ii. water table elevations with ground water flow direction;
 - iii. wells within a one-mile radius of property lines showing location, depth, static water level, age and construction;
 - iv. location and elevation of any known springs within 1,320 feet of the property lines;
 - v. general location of septic systems within 1,320 feet of the property lines
 - vi. location of designated special and impaired waters and wetlands within 1 mile of the mine.
 - vii. locations of any state-designated trout streams and MPCA Class II Waterways within one mile of the proposed mining operation.

0110.2708 GENERAL PERFORMANCE STANDARDS

Each person, firm, or corporation to whom a mineral extraction and mining conditional use permit is issued may engage in mining upon lands described in the permit, subject to the following general performance standards:

Subd. 1. General Requirements.

1. Compliance. The mining operations shall be conducted in compliance with the laws of the State of Minnesota and the Federal Government, especially as related to safety standards, ordinances and resolutions of Houston County including future amendments, and in compliance with and furtherance of the approved reclamation plan for the affected land.

2. Operation of Equipment. All equipment used for mining operations shall be constructed, maintained and operated in such a manner as to minimize as much as possible noise, lighting, vibration, and be in compliance with all Mine Safety and Health Administration regulations. All trucks shall follow an anti-idling plan that minimizes excessive idling, but accounts for traffic, temperatures in excess of 90 degrees and

less than zero degrees Fahrenheit and inclement weather. Examples of anti-idling regulations can be found at the following: American Transportation Research Institute and US EPA. All trucks shall pass a state highway safety inspection.

3. Blasting. Blasting is the use of explosives or other blasting agents to loosen, penetrate, move or shatter masses of solid materials, as a part of excavation and mining operations. No blasting activity will be conducted at excavation and mining sites unless expressly authorized in the interim use permit that allows excavation and mining activity. All blasting activity must comply with the provisions of this section and all applicable federal and state statutes and regulations. The blaster-in-charge of each blasting event must be licensed by the Minnesota Department of Public Safety.

a. Pre-Blasting Survey: is a record on paper, video, or an unalterable electronic file to document the condition of a dwelling, structure, or water well within ½ mile of the mine boundary before commencement of blasting activity. The pre-blasting survey shall be conducted to establish baseline conditions prior to implementation of a new mine, expansion of current mines. The pre-blasting survey shall include the following:

- The survey is to be completed by a third party consultant and available to the landowner upon request.
- Within 30 days, but not less than 10 days, before initiation of blasting, the operator shall notify neighbors within ½ mile of the blast by using reasonable efforts as described in subdivision 1 (5) below.
- Written notification by the company to the neighbors within ½ (one-half) mile of the blasting site shall indicate that, upon written request, the mine company will perform a pre-blasting survey. The notification will indicate that no survey will be completed unless the resident and/or landowner makes a written request for the pre-blast survey and a water quality test for existing wells to the LGU. Once a blasting survey is complete it shall be valid for a period of five (5) years.
- Survey is to include the record through inspection of the baseline condition of a house or structure, including assessments of both the interior and exterior condition of a structure, condition of a water well, and water well testing.
- The survey and water well testing shall be completed at the expense of the mine company.
- The resident or owner may request a copy of the survey and well test at any time. The company has 72 hours to provide the pre-blasting survey results upon request.

b. Blasting Notification. Within 72 hours prior to the initial blasting event at an excavation and mining site, the mining operator shall make a reasonable effort to notify all residents and land occupiers and land owners, within a radius of ½ mile of the excavation and mining site of the impending blasting event. Thereafter, the mining operator will be required to develop and maintain a blasting call list of adjacent residents

and land occupiers and land owners who request that they be notified within 72 hours prior to a blasting event. Within 72 hours prior to all blasting events at the mining site, the mining operator will use the call list to contact all residents and land occupiers and land owners requesting blasting notification by written notice, phone call, email, or verbally in person. Prior to any blasting event at the excavation and mining site, the mining operator will also give general public notice of the impending blasting event by displaying a fluorescent flag and legible sign within 100 ft. of all public roads bordering the blasting site. Additionally, a distinctive warning signal shall be sounded by horn immediately prior to the blasting event.

c. Control of Adverse Effects. The mining operator is obligated to take all reasonable actions necessary to control and minimize adverse effects of blasting events, including fly rocks, air blasts, ground vibrations, and seismic damage to adjacent wells, dwellings, buildings, monuments and structures. All fly rocks will remain within the excavation and mining site. All blasting must be in conformance with all applicable federal and state regulations.

d. Investigation of Complaints. The Zoning Administrator has the responsibility and authority to investigate complaints that blasting activity is damaging dwellings, utilities, structures, or water wells or injuring people or livestock, and to order the mining operator to suspend blasting activity at the excavation and mining site until (i) the alleged damage is verified, (ii) the blasting activity as the cause of such damage is verified, and (iii) a solution is approved to prevent future blasting damage. The Zoning Administrator's monitoring and investigation of blasting activity relates only to permit enforcement, and not to determining potential civil or criminal liability of the mining operator for the consequences of any blasting activity.

e. Blasting Log. The mining operator shall maintain an accurate and complete blasting log of each blasting event occurring at an excavation and mining site. The blasting log will be maintained by the blasting company and mining company. Copies of blasting logs shall be given to the County within 5 working days upon request. The blasting log will be maintained for not less than 5 years. Each blasting log shall include the following information: (i) Name and license number of each blaster in charge, (ii) blast location, (iii) date and time of blasting event, (iv) weather conditions at time of the blasting event, (v) diagram and cross section of blast hole layout, (vi) blast hole depth, spacing and diameter, (vii) total pounds and type of explosives used, (viii) distance to nearest inhabited dwelling, and (ix) seismic recordings of vibration and air blast levels.

f. Storage of Explosives. The mining operator will not store any explosives or blasting agents at the excavation or mining site.

4. Volume Limit. Sand mines shall be capped at a volume of 60,000 cubic yards (truck yards) per calendar year per site. This limit can be exceeded during times of government declared natural disasters or emergencies or a public construction project. The Zoning Administrator shall approve, in writing, any exceedance of limits.

Subd. 2. Vegetation.

1. Removal of Trees and Shrubs. Clearing of the mining site shall conform to the approved development and reclamation plan. Existing trees and shrubs shall remain in their natural state and shall not be removed until necessary for mining activity.

2. Weeds and Noxious Vegetation. Weeds and other unsightly or noxious vegetation shall be cut or trimmed or sprayed as may be necessary to control and prevent seeding on adjoining property.

3. Preservation of Existing Trees and Ground Cover. Existing trees and vegetative cover along public road frontage and within road and property line setback areas shall be preserved, maintained and supplemented when required as a part of development approvals except where the County determines traffic safety requires cutting and trimming.

Subd. 3. Access.

1. Jurisdiction. All access points must be approved by the local government agencies having road jurisdiction.

2. Avoid Residential Streets. All access points shall be located so as to minimize the routing of vehicles to and from the mining operation over streets that primarily serve abutting residential development.

3. Access Signage. Ingress and egress access points from or onto any road or highway shall be clearly signed, and only those signed access points shall be utilized.

4. Spillage on Roadways. Trucks used in hauling materials from the site of excavation shall be loaded in such manner as to minimize spillage onto public roadways. Any spillage resulting from overloading or from truck tires shall be removed immediately.

5. Dust. All access roads from mining operations to public roadways shall be paved or surfaced with gravel treated with dust control agents to minimize dust conditions.

Subd. 4. Water Resources.

1. Drainage Interference Prohibited. The mining operation shall not be allowed to interfere with surface water drainage beyond the boundaries of the mining operation.

2. Surface and Subsurface Water Quality and Quantity. The mining operation shall not adversely affect the quality or quantity of surface or subsurface water resources.

3. Non-degradation of Surface Water. Surface water originating outside and passing through the permitted mining site shall, at its point of departure from the mining site, be of equal or better quality than the water at the point where it enters the mining site. The mining operator shall perform any water treatment necessary to comply with this provision.

Subd. 5. Safety Barrier. All mining operations shall comply with the following standards:

1. Ponded Water. Where collections of water occur that are one and one-half (1½) feet or more in depth, existing for any period of at least one (1) month, and occupy an area of seven hundred (700) square feet or more, accesses to such collections of water shall be secured by an effective barrier.

2. Safety Barrier. In locations where slopes occur that are planned steeper than one (1) foot vertical to two (2) feet horizontal, a safety barrier shall be installed and maintained.

Subd. 6. Screening. To minimize problems of dust and noise and to shield mining operations from public view, a screening barrier such as a berm or vegetated buffer shall be established. The screening shall be maintained between the mine and all adjoining properties and public roads.

Subd. 7. Siting and Location Requirements. Any new or expanded mineral extraction and mining site must comply with the following siting and location requirements. When more than one (1) setback standard applies, the most restrictive standard shall apply. Mining operations shall not be conducted closer than:

1. Prohibited in District. One thousand (1,000) feet from the permitted operation boundary to the boundary of any zoning district where mining operations are not permitted. This setback standard is reciprocal.

2. Residentially Zoned. Any new zoning district shall be setback at least one thousand (1,000) feet from any permitted or regulated mine. This setback standard is reciprocal.

3. Anywhere People Congregate. One thousand (1,000) feet to the adjoining property line of any permitted or licensed place people congregate or at-risk populations reside such as permanent year-round public trails and parks, campgrounds, athletic fields, nursing homes, licensed day care or assisted living/congregate care facilities, or churches. This setback standard is reciprocal.

4. Adjoining Property Line. One hundred (100) feet to the boundary of an adjoining surveyed property line, unless a variance is applied for and approved by the Board of Adjustment.

5. Excavating or Stockpiling. One hundred (100) feet to the right-of-way line of any existing or platted street, road, or highway.

6. Public Waters. One-half mile from the ordinary high water level of any water body on the DNR inventory of public waters and MPCA Class II Waterways for the County. Existing mines wishing to expand shall expand no closer than the current mine boundary.

7. Residential Structures. One thousand three hundred twenty (1,320) feet from any residential structure to the boundary of the mine operational plan except those residential structures owned by the applicant or mine owner. No new residential structures can be built within 1,320 feet of described mining operations. This setback standard is reciprocal.

8. Size requirement. With the exception of aggregate mines, no mines shall exceed 20 acres of active mining or excavation activity. No aggregate mine shall exceed 60 acres of active mining or excavation activity.

9. Density. One mile from any other sand mine boundaries. Existing mines wishing to expand shall expand no closer than the current mine boundary.

0110.2709 OPERATIONAL PLAN REQUIREMENT

Subd. 1. Operational Plan Requirement. No Conditional Use Permit shall be issued until an Operational Plan has been submitted to and approved by the County.

Subd. 2. Operation Plan Content. The Operation Plan shall include a narrative discussing the following topics, and providing such other information as may be required by the Zoning Administrator, the Planning Commission, or the County Board of Commissioners. The Operation Plan shall include:

- 1) A statement containing the planned commencement date and an estimate of the life expectancy of the proposed operation;
- 2) Proof of all required Federal, state and local licenses and permits;
- 3) Proof of appropriate insurance coverage;
- 4) Proof of an ownership or leasehold interest to the Zoning Administrator;
- 5) A description of the proposed locations and volumes of onsite stockpiling in either yardage or tonnage. All excavated materials shall remain on the mine site.
- 6) A proposed barrier, screening and grading plan necessary to minimize noise, dust, erosion, and other adverse effects of the activity to address public safety;
- 7) Identification of all structures used to impound water except those used for agricultural purposes must be designed by a professional engineer registered in the State of Minnesota;
- 8) For all new excavation and mining sites, and expansions of existing excavation and mining sites:
 - a) A provide a geologic survey by a registered engineer.
 - b) A karst features survey identifying sensitive areas located within 1320 feet from surveyed boundary line of the mine.
- 9) A contingency plan for responding to spills and berm/earthen dam failure, or accidental release of chemicals, dust, waste, process water, or tailings;
- 10) A description of all on site processing;
- 11) A description of the days and hours of operations;
- 12) A soil erosion and sediment control plan;
- 13) A dust and noise control plan;
- 14) If a mineral extraction facility proposes to dewater the site, a plan must be submitted that meets state requirements and standards.
- 15) A list of the type and quantity of equipment to be used;
- 16) Mining operators will not mine vertically closer than a depth of ten (10) feet to an existing groundwater table;
- 17) An estimate of the volume and types of material to be extracted annually and over the life of the mining operations;
- 18) A traffic impact analysis, which shall include:
 - a) all proposed off-site trucking routes for transporting extracted materials both

- to and from the mining and excavation site;
 - b) a proposed traffic safety and intensity solutions; and
 - c) an excavation or mining site plan, including parking layout and loading/staging areas.
 - d) traffic analyses for all roadway and intersections impacted by the mine.
- 19) A description of water usage including an estimate of the amount of daily water use, water sources, water use monitoring wells, and methods of disposing of consumed and excess water and controlling runoff;
- 20) A list and quantities of all hazardous materials, including fuel supplies and chemicals that would be stored on site;
- 21) A letter of approval or agreement relating to road use from all governmental agencies along the proposed haul route;

Subd. 2. Operations Map. An operations map shall be drawn at a scale of one (1) inch to one hundred (100) feet and shall show the tract to be mined and the adjacent area within five hundred (500) feet to the proposed excavation. The map shall include the following:

1. An outline of the maximum area to be excavated.
2. A vertical profile of the area to be excavated indicating over-burden and other geological layers to the extent known.
3. The location of any structures to be erected and height.
4. The location of tailings deposits showing maximum height of deposits.
5. The location of stationary equipment to be used in the mining operation.
6. The location of storage of mined materials, showing maximum height of storage deposits.
7. The location of vehicle parking.
8. The location of hazardous materials, including fuel supplies and chemicals that would be stored on site.
9. Erosion and sediment control structures.
10. Egress and ingress points and proposed turning lanes.
11. The location of the mining operation phases.
12. Excavation and stockpile location and setbacks.
13. The location of any processing facilities.

Subd. 3. Operational Limitations for Mineral Extraction and Mining Sites under a Conditional Use Permit.

1. Mining operators will not cause an adverse effect on ground water or surface waters from the mining site.
2. All roads used for the transportation of mined materials must be maintained to the criteria approved by the LGU.
3. Mining operators shall assure that all loading and unloading of trucks and equipment occurs on-site and not on public property. Trucks and equipment cannot park on the public road, and must park on site. No truck or equipment shall be driven on a public road unless its load is securely covered according to Minnesota law and DOT requirements.

4. Mining operations at the site will be Monday through Friday, 6:00 a.m. to 8:00 p.m. during summer months which are the months that fall within Central Daylight Time (CDT) and Monday through Friday, 7:00 am to 5:00 p.m. during winter months which are the months that fall within Central Standard Time (CST). Operations may also occur year-round on Saturdays, 7:00 a.m. to 3:00 p.m. The operator shall not haul material on public roadways between 12:00 noon on the days preceding and 8:00 a.m. on the day following any Legal Holiday or consecutive combination of a Saturday, Sunday, and a Legal Holiday without the County's written permission. The Zoning Administrator may temporarily approve operations beyond these days and hours to respond to public or private emergencies or whenever any reasonable or necessary repairs to equipment need to be made. Quiet hours shall run from 6:00 a.m. to 7:00 a.m. and 7:00 p.m. to 8:00 p.m. during which no back-up alarms or jake brakes shall be used.
5. Mining operators shall monitor and maintain the property so that it does not become a danger or nuisance.
6. The County Board may add any conditions to a conditional use permit which are intended to protect the health, safety, and general welfare of the public and to reduce the adverse impact of the use being permitted. If the terms of an existing Conditional Use Permit are violated, the County Board may impose such additional remedial conditions as are necessary to address the violation, or future violations.

0110.2710 RECLAMATION PLAN OF MINERAL EXTRACTION AND MINING SITES

Subd. 1. Reclamation Plan Required. An applicant for an Interim or a Conditional Use Permit shall submit a detailed reclamation plan. No mining or excavation activity shall begin until the County Board has approved the reclamation plan as a condition of issuing an interim or conditional use permit. Unless otherwise authorized in the permit, the reclamation plan shall provide for phased reclamation of the site during and throughout mining operations and immediately following the end of mining operations. Phased reclamation shall be implemented by having no more than twenty (20) acres of exposed soils at any given time. Vegetative cover shall be established on overburden piles and must follow MPCA storm water requirements to control erosion on all exposed soils.

The reclamation plan shall include the following:

- 1) A time schedule for phased and final reclamation;
- 2) The method used to plug any exploratory or drill holes;
- 3) The method of grading, back filling and contouring the mining site and access road;
- 4) The method of waste management and disposal, including liquid and solid wastes and tailings;
- 5) The method of re-vegetation of the site. All pre-existing top soil must remain at the excavation site to be used for reclamation.
- 6) The plan shall also include the following:
 - i. A description of the replacement of sub soils and top soil;
 - ii. Surface water drainage;
 - iii. Vegetation cover type and species;
 - iv. Location of wetlands (soils, vegetation, and hydrology);

- v. Documentation of finished grades and slopes.

Subd. 2. Reclamation Plan Commencement Requirement. All mining sites shall be fully reclaimed within one year of when mining operations cease. Reclamation must commence when any of the following conditions occur:

1. Within a period of three (3) months after the revocation of a mineral extraction and mining interim or conditional use permit.
2. Within three (3) months after failure to meet biennial mine registration requirement.
3. Within three (3) months after expiration of a mineral extraction and mining interim use permit.

Subd. 3. Reclamation Plan Standards. The following standards shall apply to all reclamation:

1. **Removal of Buildings and Structures.** All buildings, structures and plants incidental to such operation shall be dismantled.
 - a. A temporary variance may be granted for those buildings, structures, machinery and plants required to process previously mined materials stored on the site. Such variance may apply for only one (1) year, after which said buildings, structures machinery and plants shall be removed.
2. **Grading and Filling.** The peaks and depressions of the area shall be graded and back filled to an elevation which will result in substantially conforming to the surrounding landscape and which will minimize erosion due to rainfall.
3. **Soil Quality.** Reclaimed areas shall be surfaced with soil type and structure that adequately provides for the establishment of planned vegetative cover.
4. **Ground Cover.** Land shall be replanted with native vegetation unless inconsistent with the final proposed land use.
5. **Ponds.** Excavations completed to a water producing depth need not be back filled if the water depth is at least ten (10) feet and if banks shall be sloped to the water-line at a slope no steeper than three (3) feet horizontal to one (1) foot vertical. Ponds created for a wetland shall meet parameters under MN Rule 8420.
6. **Finished Grades.** The finished grade shall be such that it will not adversely affect the surrounding land or future development of the site upon which mining operations have been conducted. The finished plan shall restore the mining site to a condition whereby it can be utilized for the type of land use proposed to occupy the site after mining operations cease.
7. **Minimum Requirements.** Proposed reclamation plan land uses shall be consistent with the Comprehensive Plan, zoning code requirements and applicable federal, state, and local regulations in effect at the time the plan is submitted, and may be required

to be amended over time.

8. **Storm Water.** Soil erosion and sedimentation control measures shall be consistent with NRCS standards and specifications and MPCA Industrial Storm Water Standards and Specifications.

Subd. 4. Reclamation Plan. The Reclamation Plan shall include a narrative discussing how the above standards will be met and provide a cost estimate. It shall also include any additional information required by the Zoning Administrator, the Planning Commission, or the County Board of Commissioners.

Subd. 5. Reclamation Plan Map. The reclamation plan shall include a reclamation plan map which shall be drawn at a scale of one (1) inch to one hundred (100) feet and shall show the adjacent area within five hundred (500) feet to the proposed excavation. The map shall include the following:

1. Final grade of proposed site showing elevations and contour lines at five (5) foot intervals.
2. Location and species of vegetation to be replanted.
3. Location and nature of any structures and erosion control practices to be erected as part of the Reclamation Plan.

Subd. 6. Changes in the Reclamation Plan. In the event the operator finds the characteristics of the mining area to be different than what was previously determined, changes may be made in the original reclamation plan through the issuance of an amendment to the interim use or conditional use permit. If the permit is amended it must be approved by the Zoning Administrator, Planning Commission and the County Board. Such change shall preserve, as substantially as possible, the original reclamation plan, and shall also provide for the previously unknown variables.

0110.2711 SECURITY BOND REQUIRED

The County may require, as a condition of issuance of an Interim Use or Conditional Use Permit, the posting of a letter of credit, bond, or cash escrow in such form and sum as determined by the County Board. A security bond for mining operations shall be filed with the Zoning Administrator in such a form as the County Board prescribes and payable to the County. The amount of the bond shall be set by the County Board by resolution and adjusted every 2 years. The security shall be in an amount sufficient to reimburse the following costs:

- 1) Costs of bringing the operation into compliance with the mineral extraction permit requirements including site monitoring and enforcement costs.
- 2) Costs of providing an alternative water supply to potentially affected residences or agricultural operation located within one (1) mile of the mineral extraction facility or other such areas shown to be impacted by the extraction operation.
- 3) Site reclamation.
- 4) Costs the County may incur in enforcing the terms of the permit, including staff,

- consultant and attorney's fees.
- 5) Bonds shall have an initial term of at least 2 years and shall include a provision for notification of the County at least 30 days prior to cancellation or non-renewal.
 - 6) Bonds must be renewed in such a manner that sufficient security is in existence at all times throughout the duration of the mineral extraction and reclamation activities.
 - 7) In the event the County determines that the amount of security provided by an owner/operator must be increased, or if the amount provided has been exhausted, the County shall notify the owner/operator of the amount of additional security needed and the basis of that request. The owner/operator shall provide the additional security within 30 days of the request. Failure to comply is a violation of the interim or conditional use permit and may be subject to revocation of the mineral extraction and mining permit.
 - 8) The Planning Commission shall formulate a recommendation to the County Board relative to the posting of security and the amount that should be required. Criteria to be considered by the Planning Commission may include the following:
 - a. Past history and experience of the mine operation
 - b. Characteristics of the site
 - c. Size and volume of the operation
 - d. Site location
 - e. Other relevant factors as determined by the Commission.

0110.2712 TERM OF PERMIT

Each Interim Use Permit approved for a Short Term Mining Operation shall be valid for a period of time not to exceed three (3) years as outlined in the approved Operational Plan. Conditional Use Permits for Mineral Extraction and Mining shall abide by any and all conditions set forth therein.

1. An examination of the premises can be made by the Zoning Administrator or designated personnel at any time during the term of the operation.
2. Upon determination by the Zoning Administrator, or the County Board, that the operation is in violation of the provisions of an Interim Use Permit or Conditional Use Permit or any County Ordinances, a hearing may be held to review the existence of any alleged violations.

0110. 2713 EXISTING PERMIT REVIEW

Permits existing prior to the adoption of this Ordinance shall be reviewed administratively at 5 year intervals starting in 2015.

0110.2714 BIENNIAL REGISTRATION REQUIRED

Biennial registration of all pre-existing and permitted mineral extraction sites is required. The purpose of the biennial registration is to maintain an updated listing of active mineral extraction sites in the County, to verify and/or correct mine boundaries, to unregister any mines where activity has ceased and the owner wishes to reclaim and close, to monitor compliance with the conditions of approval, to review the applicability of the conditions and to review bonding requirements.

- 1) Mining operators must complete and return registration forms provided by the County. Failure to maintain registration shall be cause for revocation of the permit or non-conforming status.
- 2) Biennial registration is done administratively by the Zoning Administrator and will not require review by the Planning Commission or County Board, provided all conditions are being met and the activity meets all standards as outlined in this ordinance, other permits and Road Use and Maintenance Agreements.
- 3) A registration fee in an amount to be set by the County Board must be paid biennially.

0110.2715 INSPECTIONS, VIOLATIONS, PENALTIES AND ENFORCEMENT

- 1) **Inspection.** In addition to reporting requirements, the County may make inspections of all mining sites to determine the condition of the resource extraction sites in order to ensure and safeguard the health and safety of the public and determine compliance with the minimum standards under the applicable law. The applicant/permit holder agrees to pay the costs associated with the hiring of a qualified consultant. If the inspection discloses any non-compliance, the County shall issue a corrective action order. Failure by the applicant/permit holder to comply with the action order or to pay the cost of the inspection(s) shall result in a Stop Work Order and consideration of revocation of the interim use or conditional use permit.
- 2) **Violation a Misdemeanor.** Any firm, person or corporation who violates any of the provisions of these regulations shall be guilty of a misdemeanor and upon conviction thereof shall be subject to a fine and/or imprisonment as provided by law, unless a more severe penalty is provided by state or federal law. Each day that a violation is permitted to exist shall constitute a separate offense.
- 3) **Additional violations.** The following also constitute violations of the zoning code:
 - i. Engaging in resource extraction without properly obtaining an interim use or conditional use permit as required by the zoning code.
 - ii. Making incorrect or false statements in the information and documentation submitted in the reporting or during inspection by an authorized representative of the County.
 - iii. Failure to provide a biennial report by the applicable deadline.
 - iv. Failure to take appropriate or reasonable action to remediate a known violation, citation, request for additional information or financial assurance, or any other order by the County.
- 4) **Enforcement.** In the event of a violation or threatened violation of any of the terms of this ordinance, the County may take appropriate action to enforce the Ordinance, including executing on the performance bond or other security, application for injunctive relief, action to compel performance, revocation of the zoning permits, civil fines, and/or other appropriate action before the County or in court if the County deems it necessary to prevent, restrain, correct or abate such violations or threatened violations.

- 5) **Severability.** If any terms or provisions of this Ordinance shall be held invalid or unenforceable for any reason, then the remaining terms and provisions shall continue to remain in full force and effect. If a court finds that that any term or provision of this Ordinance is invalid or unenforceable, but that such term or provision could be limited and thereby be considered valid and enforceable, then such term or provision shall be deemed to be written, construed, and enforced in accordance with said limitation.

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