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2007 REVISED ZONING ORDINANCE
OF BROOKINGS COUNTY, SOUTH DAKOTA

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ARTICLE 1.00
SHORT TITLE AND APPLICATION

Section 1.01. This regulation may be known and may be cited and referred to as the "Brookings County Zoning Regulation" to the same effect as if the full title were stated.

Section 1.02. Jurisdiction. Pursuant to SDCL Chapter 11-2, 1967 as amended, the provision of this regulation shall apply within the un-incorporated areas of Brookings County, South Dakota, and including any joint jurisdictional areas, as established on the map entitled "The Official Zoning Map of Brookings County, South Dakota."

Section 1.03. Provisions of Regulation Declared to be Minimum Requirements. In their interpretation and application, the provisions of this regulation shall be held to be minimum requirements, adopted for the promotion of the public health, safety, morals, or general welfare. Wherever the requirements of this regulation are at variance with the requirements of any other lawfully adopted rules, regulations, ordinances, deed restrictions, or covenants, the most restrictive or that imposing the higher standards, shall govern.

ARTICLE 2.00
DEFINITIONS

Section 2.01. For the purpose of this regulation, certain terms and words are hereby defined. Words used in the present tense shall include the future; the singular number shall include the plural and the plural the singular; the word "building" shall include the word "structure", and the word "shall" is mandatory and not discretionary.

Section 2.02. A 25-year, 24-hour Storm Event is the amount of rainfall in a 24-hour period expected to occur only once every 25 years. Typically, the 25-year, 24-hour storm event is about 5 inches in Brookings County. The map in Appendix A shows the actual amount of rainfall that constitutes the 25-year, 24-hour storm event for South Dakota.

Section 2.03. Accessory Buildings and Uses is a subordinate use which is incidental to that of the main building or to the main use of the premises. Buildings of 120 square feet or less are not required to have a building permit.

Section 2.04. Anaerobic Lagoon means an impoundment used in conjunction with an animal feeding operation, if the primary function of the impoundment is to store and stabilize organic manure, the impoundment is designed to receive manure on a regular basis, and the impoundment's design manure loading rates provide that the predominant biological activity is anaerobic. An anaerobic lagoon does not include any of the following:

a. A confinement feeding operation structure.

b. A runoff control basin which collects and stores only precipitation induced runoff from an open feedlot.

c. An anaerobic treatment system which includes collection and treatment facilities for all gases.

Section 2.05. Animal Feeding Operation Structure means an anaerobic lagoon, formed manure storage structure, egg washwater storage structure, earthen manure storage basin, or confinement building.

Section 2.06. Animal Manure is poultry, livestock, or other animal excreta or mixture of excreta with feed, bedding or other materials.

Section 2.07. Animal Unit See Page 22.07.

Section 2.08. Applicant is an individual, a corporation, a group of individuals, partnership, joint venture, owners, or any other business entity having charge or control of one or more concentrated animal feeding operations.

Section 2.09. Aquifer is a geologic formation, group of formations or part of a formation capable of storing and yielding ground water to wells or springs.

Section 24.10. Basement A basement has more than one-half (1/2) of its height below grade. A basement is counted as a story for the purpose of height regulations if subdivided and used for dwelling purposes, other than by a janitor.

Section 2.11. Bed and Breakfast Home A building in which not to exceed five (5) rooms are rented to transients.

Section 2.12. Best Management Practices (BMP) means schedules of activities, prohibitions of practice, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMP's also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge, manure disposal, manure application, waste or manure stockpiles, or drainage from raw material storage.

Section 2.13. Building is any structure in excess of 120 square feet designed for the support, shelter and protection of persons, animals, or property.

Section 2.14. Buildings, Height of The vertical distance from the grade to the highest point of the coping of a flat roof or to the deck line of a mansard roof, or to the mean height level between the eaves and ridge for gable, hip and gambrel roofs.

Section 2.15. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Section 2.16. Change in Operation means a cumulative increase of more than 500 animal units, after May 13, 1997, which are confined at an un-permitted concentrated feeding operation.

Section 2.17. A Chronic or Catastrophic Event is a single precipitation event, or a series of rainfall events in a short period of time, that totals or exceeds the volume of a 25-year, 24-hour storm event. The event includes tornadoes, or other catastrophic conditions. The event would directly result in, or cause, an overflow from the containment structure or lagoon that receives and contains runoff from an open lot.

Section 2.18. Common Ownership is defined as single, corporate, cooperative or other joint operation or venture.

Section 2.19. Concentrated Animal Feeding Operation See Page 22.01

Section 2.20. Conditional Use A conditional use is a use that would not be appropriate generally or without restriction throughout the zoning division or district, but which, if controlled as to number, area, location, or relation to the neighborhood, would promote the public health, safety, welfare, morals, order, comfort, convenience, appearance, prosperity, or general welfare. Such uses may be permitted in such zoning division or district as conditional uses, as specific provisions for such uses are made in these zoning regulations. The Board of Adjustment may, after notice and hearing, revoke the conditional use in the event of a violation of any of such conditions. In addition, the conditional use permit may not be transferred during any violation. (Ord. 2004-01, 9-28-2004)

Section 2.21. Confinement Feeding Operation means a totally roofed animal feeding operation in which wastes are stored or removed as a liquid or semi-liquid.

Section 2.22. Confinement Feeding Operation Structure means a formed manure storage structure, egg washwater storage structure, earthen manure storage basin, or confinement building. A confinement feeding operation structure does not include an anaerobic lagoon.

Section 2.23. Corner Lot is a lot with two front yards.

Section 2.24. District A section or sections of the County for which regulations governing the use of buildings and premises, the height of buildings, the size of yards, and the intensity of use are uniform.

Section 2.25. Domestic Animal is any animal that through long association with man, has been bred to a degree which has resulted in genetic changes affecting the temperament, color, conformation or other attributes of the species to an extent that makes it unique and different from wild individuals of its kind. For the purpose of this ordinance the definition shall include, but is not limited to, animals commonly raised on farms and ranches, such as cattle, horses, hogs, sheep and mules.

Section 2.26. Dwelling Any building, including seasonal housing structures, or a portion thereof, which is designed and used exclusively for residential purposes.

Section 2.27. Dwelling, Single-Family A building occupied exclusively by one (1) family.

Section 2.28. Dwelling, Multiple A building occupied by two (2) or more families.

Section 2.29. Dwelling Unit One (1) or more rooms in a dwelling occupied as separate living quarters by a single family.

Section 2.30. Earthen Manure Storage Basin means an earthen cavity, either covered or uncovered, which, on a regular basis, receives waste discharges from a confinement feeding operation if accumulated wastes from the basin are removed at least once each year.

Section 2.31. Established Building Site means an established building site shall have been used in the past as a farmstead for a normal farming operation. Any residence established for more than ten (10) years shall become an established building site.

Section 2.32. Established Residence is any residence established by a personal presence, in a fixed and permanent dwelling and an intention to remain there.

Section 2.33. Family One (1) or more persons related by blood, marriage, or adoption occupying a dwelling unit as an individual housekeeping organization. A family may include two (2), but not more than two (2), persons not related by blood, marriage, or adoption.

Section 2.34. Farm An area with or without family dwelling which is used for the growing of the usual farm products, such as vegetables, fruit, trees and grain, and their storage on the area, as well as for the raising, feeding, or breeding thereon of the usual farm poultry and farm animals, such as horses, cattle, sheep and swine. The term "farming" includes the operating of such an area for one or more of the above uses, including dairy farms with the necessary accessory uses for treating or storing the produce; provided, however, that the operation of such accessory uses shall be secondary to that of the normal farming activities.

Section 2.35. Farm Dwelling means any residence farmer owned or occupied by the farm owners, operators, tenants, or seasonal or year-around hired workers.

Section 2.36. Farm Employee A person hired by the farm owner/ manager and works at least an average of 20 hours a week on the farm doing customary farm work. Proof of a Employer/Employee relationship must be provided in writing.

Section 2.37. Feedlot Operator means an individual, a corporation, a group of individuals, partnership, joint venture, owners, or any other business entity having charge or control of one or more concentrated animal feeding operations.

Section 2.38. Formed Manure Storage Structure means a structure, either covered or uncovered, used to store manure from a confinement feeding operation, which has walls and a floor constructed of concrete, concrete block, wood, steel, or similar materials.

Section 2.39. Frontage All the property on one (1) side of a street or road.

Section 2.40. Garage, Private An accessory building used for the storage of not more than four (4) vehicles owned and used by the occupant of the building to which it is accessory.

Section 2.41. Home Occupation and Home Extended Occupations (See General Requirements section, Article 17.00.)

Section 2.42. Housed Lot means totally roofed buildings that may be open or completely enclosed on the sides. Animals are housed over solid concrete or dirt floors, slotted floors over pits or manure collection areas in pens, stalls or cages. Housed lot is synonymous with other industry terms such as slotted floor buildings.

Section 2.43. Institution farm Agricultural land wholly owned by a government agency, Federal, State, County or Municipality, and used to grow an agricultural commodity. (Ord. 2004-01, 9-28-2004)

Section 2.44. Junk/Salvage/Recycling Yard The use of more than one thousand (1,000) square feet of any land, building, or structure for commercial purposes, where waste, discarded materials such *as* scrap metals, used building materials, used lumber, used glass, discarded vehicles, paper, rags, rubber, cordage, barrels etc., are stored.

Section 2.45. Letter of Assurances is a list of conditions signed by the applicant for a permit acknowledging agreement to follow the conditions of the permit.

Section 2.46. Lodging House A building or place where lodging is provided (or which is equipped to provide lodging regularly) by pre-arrangement for definite periods, for compensation, for three (3) or more persons in contradistinction to hotels open to transients.

Section 2.47. Lot, Buildable (1) A parcel of land occupied or intended for occupancy by a use permitted in this regulation, including one (1) main building together with its accessory buildings, the open spaces and parking spaces required by this regulation. (2) A lot which is a part of a subdivision, the plat of which has been recorded in the office of the County Register of Deeds at the time of the adoption of this regulation, provided that said lot has a frontage of not less than seventy five (75) feet; or an irregular tract lot described by a deed recorded in the office of the County Register of Deeds at the time of the passage of this regulation; provided that if a lot has less width or area as required by this regulation, the lot is not a buildable lot.

Section 2.48. Lot, Corner A lot abutting upon two (2) or more streets at their intersection.

Section 2.49. Lot, Depth of The average horizontal distance between the front and rear lot lines.

Section 2.50. Lot, Double Frontage A lot having a frontage of two (2) streets as distinguished from a corner lot.

Section 2.51. Man-made means a pipeline, ditch, drain, tile, terrace, irrigation system, machine, or other object that carries manure, wastewater, or runoff into waters of the state.

Section 2.52. Manufactured Home is a building, used exclusively for human habitation, which is constructed in a manufacturing facility after June 15, 1976, in compliance with the National Manufactured Home Construction and Safety Standards Act and transportable in one or more sections to a building site.

Section 2.53. Manure Management System means any piping, containment structures, and disposal appurtenances associated with the collection, storage, treatment, and disposal of manure or wastewater at a concentrated animal feeding operation.

Section 2.54. Mobile Home is a building, used exclusively for human habitation, constructed in a manufacturing facility prior to June 15, 1976, the effective date of the National Manufactured Home Construction and Safety Standards Act, which is transported on a permanent chassis to a building site. A mobile home shall be construed to remain a mobile home subject to all regulations applying thereto, whether or not wheels, axles, hitch or other appurtenances of mobility are removed and regardless of the nature of the foundation provided. A mobile home shall not be construed to be a travel trailer or other form of recreational vehicle.

Section 2.55. Mobile Home Park Any premises used or set apart for supplying to the public parking space for one (1) or more mobile homes for living and sleeping purposes, and which include any buildings, structures, vehicles or enclosures used or intended for use by park residents.

Section 2.56. Modular Home is a building, used exclusively for human habitation, constructed off site and in compliance with the applicable local or state building code and which is transported on a temporary chassis to a permanent building site.

Section 2.57. Motel A series of attached, semi-attached, or detached sleeping or living units, for the accommodation of transient guests and not customarily including individual cooking or kitchen facilities, said units having convenient access to off-street parking spaces for the exclusive use of guests or occupants.

Section 2.58. Non-conforming Use Any building or land lawfully occupied by a use at the time of passage of this regulation or amendment thereto, which does not conform after the passage of this regulation or amendment.

Section 2.59. Non-farm Dwelling means any occupied dwelling, which is not a farm dwelling.

Section 2.60. No-till Cropland means land which is subject to a conservation farming practice: where the soil is left undisturbed from harvest to planting; where planting or drilling is done in a narrow seedbed or slot created by coulters, row cleaners, disk openers, or in-row chisel; and where this conservation practice has been ongoing for at least four consecutive years to establish the soil characteristics necessary to reduce or eliminate erosion from runoff.

Section 2.61. Open Concentrated Animal Feeding Operation is an un-roofed or partially roofed animal feeding operation in which no crop, vegetation, forage growth or post-harvest residues are maintained during the period that animals are confined in the operation.

Section 2.62. Open Lot means pens or similar confinement areas with dirt, or concrete (or paved or hard) surfaces. Animals are exposed to the outside environment except for possible small portions affording some protection by windbreaks or small shed type shade areas. Open lot is synonymous with other industry terms such as pasture lot, dirt lot or dry lot.

Section 2.63. Parking Space An area, enclosed or un-enclosed, sufficient in size to store one (1) automobile, together with a driveway connecting the parking space with a street or alley.

Section 2.64. Permit is required by these regulations unless stated otherwise.

Section 2.65. Potential Pollution Hazard A Concentrated Animal feeding Operation of 100 to 500 Animal Units may be classified as a Class D Operation by the County Zoning Officer when a Potential Pollution Hazard exists. Factors to be considered by the Zoning Officer in determining a Potential Pollution Hazard include the following:

a. The Concentrated Animal Feeding Operation does not meet the minimum setback and separation distances of these regulations.
b. A Potential Water Pollution Hazard exists due to sitting over a shallow aquifer or drainage which contributes to the waters of the State.

Section 2.66. Process Generated Wastewater means water directly or indirectly used in the operation of an animal feeding operation. The term includes spillage or overflow from watering systems; water and manure collected while washing, cleaning or flushing pens, barns, manure pits or other areas; water and manure

collected during direct contact swimming, washing or spray cooling of animals; and water used in dust control.

Section 2.67. Process Wastewater means any process generated wastewater and any precipitation (rain or snow) that comes into contact with the animals, manure, litter or bedding, feed, or other portions of the animal feeding operation. The term includes runoff from an open lot.

Section 2.68. Producer means the owner or operator of the concentrated livestock feeding operation.

Section 2.69. Religious Farming Community An agricultural community with common land and property ownership. (Ord. 2004-01, 9-28-2004)

Section 2.70. Sale or Auction Yard or Barn A place or building where the normal activity is to sell or exchange livestock. Livestock normally in yard or farm for one (1) day during sale or auction.

Section 2.71. Seasonal Camp Trailers or Recreational Vehicles A vehicle designed for temporary seasonal living quarters.

Section 2.72. Sediment Basin is a basin constructed to trap and store water-born sediment and debris.

Section 2.73. Service Station Any building or premises where automotive fuels are stored and made available for sale and dispensing through fixed equipment into fuel supply tanks or motor vehicles and where automotive supplies and accessories may or may not be available.

Section 2.74. Severe Property Damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Section 2.75. Shall means that the condition is an enforceable requirement of this permit.

Section 2.76. Shallow Aquifer is an aquifer vulnerable to contamination because the permeable material making up the aquifer (a) extends to the land surface so percolation water can easily transport contaminants from land surface to the aquifer, or (b) extends to near the land surface and lacks a sufficiently thick layer of impermeable material on the land or near the land surface to limit percolation water from transporting contaminants from the land surface to the aquifer.

Section 2.77. Shallow Well is a well which is located in a shallow aquifer.

Section 2.78. Shelterbelt A strip or belt of trees or shrubs established to reduce soil erosion and to protect yards, lots, buildings, livestock and residences, recreation and wildlife from wind.

Section 2.79. Should means that the condition is a recommendation. If violations of the permit occur, the Board of Adjustment will evaluate whether the producer implemented the recommendations contained in this permit that may have helped the producer to avoid the violation.

Section 2.80. Significant Contributor of Pollution means to determine if a feedlot meets this definition, the following factors are considered:

a. Size of feeding operation and amount of manure reaching waters of the state;

b. Location of the feeding operation in relation to waters of the state;

c. Means of conveyance of manure and process wastewater into waters of the state; and

d. The slope, vegetation, rainfall and other factors affecting the likelihood or frequency of discharge of animal manure and process wastewater into waters of the state.

Section 2.81. Solid Waste (reference SDCL 34A-6-1.3, 17.) any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded materials, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial and agricultural operations and from community activities, but does not include mining waste in connection with a mine permitted under Title 45, hazardous waste as defined under chapter 34A-11, solid or dissolved materials in domestic sewage or dissolved materials in irrigation return flows or industrial discharges with are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended to January 1, 1989, or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended to January 1, 1989.

Section 2.82. Solid Waste Facility or solid waste disposal facility, (reference SDCL 34A-6-1.3, 18.) All facilities and appurtenances connected with such facilities, which are acquired, purchased, constructed, reconstructed, equipped, improved, extended, maintained or operated to facilitate the disposal or storage of solid waste.

Section 2.83. Solid Waste Management System (reference SDCL 34A-6-1.3, 19.) Is the entire process of storage, collection, transportation, processing and disposal of solid wastes by any person.

Section 2.84. Street, Highway or Road All property acquired or dedicated to the public and accepted by the appropriate governmental agency for street, highway or road purposes.

Section 2.85. Street, Highway or Road, Right-of-Way (ROW) Line A dividing line between a lot or parcel of land and a contiguous street, highway or road.

Section 2.86. Structure Anything constructed or erected, the use of which requires permanent location on the ground or attached to something having a permanent location on the ground.

Section 2.87. Structural Alterations Any change in the supporting members of a building, such as bearing walls or partitions, columns, beams, or girders, or any complete rebuilding of the roof or the exterior walls.

Section 2.88. Twin Homes A two family unit, with a common wall, under separate ownership, on more than one lot, zero setback with one side yard and having separate septic systems for each family.

Section 2.89. Unauthorized Releases mean the discharge of water from the lower end of the treatment or containment system through a release structure or over or through retention dikes. An unauthorized release is distinguished from a bypass in that a bypass discharges wastewater prior to any treatment or containment.

Section 2.90. Waters of the State means all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.

Section 2.91. Yard An open space on the same lot with a building, unoccupied and unobstructed. In measuring a yard for the purpose of determining the width of a side yard, the depth of a front yard, or the depth of a rear yard, the minimum horizontal distance between the lot line and bearing wall of the main building shall be used.

Section 2.92. Yard, Front A yard extending across the front of a lot between the side yard lines, and being the minimum horizontal distance between the road right-of-way line and the main bearing wall of the main building or any projections

thereof other than the projections of the usual steps, un-enclosed balconies or open porch.

Section 2.93. Yard, Rear Any yard extending across the rear of a lot measured between the side lot lines, and being the minimum horizontal distance between the rear lot line and the rear of the main building or bearing wall or any projections other than steps, un-enclosed porches, or un-enclosed balconies. On corner lots the rear yard may be to the rear of either street, provided that the minimum rear yard depth requirement shall be calculated on the longest average lot dimension. On interior lots the rear yard shall in all cases be at the opposite end of the lot from the front yard.

Section 2.94. Yard, Side A yard between the main building and the side line of the lot being the minimum horizontal distance between the bearing wall of the building and the side yard line, and extending from the front lot line to the rear yard line.

Section 2.95. Zoning Complaints All zoning complaints must be in writing and signed.

ARTICLE 3.00
ESTABLISHMENT OF DISTRICTS

Section 3.01. Districts. For the purpose of this regulation, the un-incorporated areas of the County may be divided into any of the following zoning districts: A--Agricultural; CI--Commercial/ Industrial; LP--Lake Park; NR--Natural Resources; Flood Plain Overlay District; Aquifer Protection Overlay District.

Section 3.02. Provision for Official Zoning Map.

1. The un-incorporated area of the County is hereby divided into zones, or districts, as shown on the Official Zoning Map which, together with all explanatory matter thereon, is hereby adopted by reference and declared to be a part of this regulation. The Official Zoning Map shall be identified by the signature of the Chairman of the Board of County Commissioners, attested by the County Auditor, and bearing the seal of the County under the following words: "This is to certify that this is the Official Zoning Map referred to in Section 3.02 of the regulation adopted May 24, 1988 by Brookings County, South Dakota.

   If, in accordance with the provisions of this regulation, changes are made in district boundaries or other matter portrayed on the Official Zoning Map, such changes shall be entered on the Official Zoning Map promptly after the amendment has been approved by the Board of County Commissioners, with an entry on the official Zoning Map as follows: "On _____ by official action of the Board of County Commissioners, the following change(s) were made in the official Zoning Map:" (brief description of nature of change), which entry shall be signed by the Chairman of the Board of County Commissioners and attested by the County Auditor. No amendment to this regulation which involves matter portrayed on the official Zoning Map shall become effective until after such change and entry has been made on said map.

   No changes of any nature shall be made on the official Zoning Map or matter shown thereon except in conformity with the procedures set forth in this regulation. Any unauthorized change of whatever kind by any person or persons shall be considered a violation of this regulation and punishable as provided under Article 7.00

2. In the event the official Zoning Map becomes damaged, destroyed, lost, or difficult to interpret because of the nature or number of changes and additions, the Board of County Commissioners may, by resolution, adopt a new official Zoning Map which shall supersede the prior Official Zoning Map. The new Official Zoning Map shall be identified by the signature of the Chairman of the Board of County Commissioners, attested by the County Auditor, and bearing the seal of the County under the following words: "This is to certify that this Official Zoning Map supersedes and replaces the official Zoning Map adopted (date of adoption of map being replaced) for Brookings County, South Dakota." Unless the prior Official Zoning Map has been lost, or has been totally destroyed, the prior map or any significant parts thereof remaining shall be preserved, together with all available records pertaining to its adoption or amendment.

Section 3.03. Interpretation of District Boundaries.

1. A district name or letter symbol shown on the district map indicates that the regulations pertaining to the district designated by that name or symbol extend throughout the whole area in the un-incorporated portions of the County bounded by the district boundary lines.

2. In cases where the boundary line is given a position within a street, road, or non-navigable stream, it shall be deemed to be in the center of the street, road, or stream, and if the actual location of such street, road, or stream varies slightly from the location as shown on the district map, then the actual location shall control.

3. In cases where a boundary line is shown as being located a specific distance from a street line or other physical feature, this distance shall control.

4. In cases where a boundary line is shown adjoining or coincident with a railroad, it shall be deemed to be in the center of the railroad right-of-way and distances measured from the railroad shall be measured from the center of the designated mainline track.

5. Where the district boundaries are not otherwise indicated and where the property has been or may hereafter be divided into blocks and lots, the district boundaries shall be construed to be the lot lines and where the districts designated on the Official Zoning Map accompanying and made a part of this regulation are bounded approximately by lot lines, said lot lines shall be construed to be the boundary of such districts unless said boundaries are otherwise indicated on the map or by resolution.

6. In un-subdivided property, unless otherwise indicated, the district boundary line on the official Zoning Map accompanying and made a part of this regulation shall be determined by the use of the scale contained on such map.

Section 3.04. All territory which may hereafter become a part of the un-incorporated area of the County by the dis-incorporation of any village, town or city, or for some other reason may fall within the zoning jurisdiction of the County, shall automatically be classified in the "A" Agricultural District until within a reasonable time following dis-incorporation or acquisition of zoning jurisdiction, the territory shall be appropriately classified by regulation.

Section 3.05. Application of District Regulations.

Except as hereafter provided:

1. No building shall be erected, converted, enlarged, reconstructed or structurally altered, nor shall any building or land be used except for a purpose permitted in the district in which the building or land is located.

2. No building shall be erected, converted, enlarged, reconstructed, or structurally altered to exceed the height limit established for the district in which the building is located.

3. No building shall be erected, converted, enlarged, reconstructed, or structurally altered except in conformity with the area and parking regulations of the district in which the building is located.

4. The minimum yards and other open spaces, including lot area per family, required by this regulation for each and every building at the time of passage of this regulation or for any building hereafter erected shall not be encroached upon or considered as yard or open space requirements for any other buildings, nor shall any lot area be reduced beyond the district requirements of this regulation.

5. Every building hereafter erected or structurally altered shall be located on a buildable lot as herein defined and in no case shall there be more than one (1) main building on one (1) buildable lot.

6. All sign sizes, light, and location shall, at a minimum, meet all State and Federal laws and regulations.

ARTICLE 4.00
NONCONFORMING USES OR LOTS OF RECORD

Intent: Within the districts established by this regulation or amendments that may later be adopted, there exist lots, structures, uses of land and structures, and characteristics of use, which were lawful before this regulation was passed or amended but which would be prohibited, regulated or restricted under the terms of this regulation or future amendments. It is the intent of this regulation to permit these non-conformities to continue until they are removed, but not to encourage their survival. It is further the intent of this regulation that non-conformities shall not be enlarged upon, expanded or extended, nor be used as grounds for adding other structures or uses prohibited elsewhere in the same district.

Section 4.01. If no structural alterations are made, any non-conforming use of a structure or structure and premises, may, as a special exception, be changed to another non-conforming use provided that the County Zoning Commission, either by general rule or by making findings in the specific case, shall find that the proposed use is more appropriate to the district than the existing non-conforming use. In determining such a change, the County Zoning Commission may require appropriate conditions and safeguards in accord with the provisions of this regulation. When a non-conforming use has been changed to a conforming use, it shall not be changed subsequently to any non-conforming use.

Section 4.02. In the event that a non-conforming use of any building or premises is, in fact, discontinued or its normal operation stopped for a period of one (1) year, the Board may adopt, after notice by registered or certified mail to the property owners, an amortization schedule to bring about the gradual elimination of such non-conforming use or occupancy.

Section 4.03. No existing building devoted to a use not permitted by this regulation, in the district in which such building is located, except when required to do so by law, shall be enlarged, extended, converted, reconstructed or structurally altered, unless such use is changed to a use permitted in the district in which the building is located.

Section 4.04. When a building, the use of which does not conform to the provisions of this regulation, is damaged by fire, explosion, or the public enemy, to the extent of more than sixty percent (60%) of its fair market value, it shall not be restored except in conformity with the regulations of the district in which the building is situated.

Section 4.05. Nothing in this regulation shall be interpreted as authorization for, or approval of, the continuance of the use of a building or premises in violation of zoning regulations in effect at the time of the effective date of this regulation.

Section 4.06. If two (2) or more lots or combinations of lots and portions of lots with continuous frontage in single ownership are of record at the time of passage or amendments of this regulation, and if all or part of the lots do not meet the requirements established for lot width and area, the lands involved shall be considered to be an undivided parcel for the purposes of this regulation, and no portion of said parcel shall be used or sold in a manner which diminishes compliance with lot width and area requirements established by this regulation, nor shall any division of any parcel be made which creates a lot width or area below the requirements stated in this regulation.

Section 4.07. On any non-conforming structure or portion of a structure containing a non-conforming use, work may be done on ordinary repairs, or on repairs or replacement of non-bearing walls, fixtures, wiring, or plumbing, provided that the nonconformity of the structure shall not be increased.

If a non-conforming structure or portion of a structure containing a non-conforming use becomes physically unsafe or unlawful due to the lack of repairs and maintenance, and is declared by any duly authorized official to be unsafe or unlawful by reason of physical condition, it shall not thereafter be restored, repaired, or rebuilt except in conformity with the regulations of the district in which it is located.

Section 4.08. Non-conforming lots of record which were zoned for small lot development prior to the adoption of amendments in 1988 may be developed if other minimum requirements of this ordinance are met.

ARTICLE 5.00
COUNTY ZONING COMMISSION, APPEALS, VARIANCE AND CONDITIONAL USES

Section 5.01. Within Brookings County, outside of incorporated municipalities and joint jurisdictional areas, the power and jurisdiction related to this article shall be executed by the County Planning Commission, known as the County Zoning Commission.

1. The members of the Commission shall select one (1) of their members as Chairman and another as Vice-chairman, who shall act as Chairman in the Chairman's absence. Both shall serve one (1) year and until their successors have been selected. Meetings of the Commission shall be held at the call of the Chairman and at such times as the Commission shall determine.

2. The Chairman, or in his or her absence the Acting Chairman, may administer oaths and compel the attendance of witnesses in order to execute the purposes of this article.

3. All meetings of the County Zoning Commission shall be open to the public. The Commission shall keep minutes of its proceedings and shall keep records of its examinations and other official actions, all of which shall be immediately filed in the office of the Commission and shall be public record. The Commission shall keep record in the minutes showing the vote of each member upon each question or if absent or failing to vote, indicating that fact.

Section 5.02. That pursuant to SDCL 11-2-49 the County Zoning Commission shall act as the Board of Adjustment. (Ord. 2004-01, 9-28-2004)

Section 5.03. Powers and Jurisdiction Relating to Administrative Review. The County Zoning Commission acting as the Board of Adjustment, pursuant to SDCL 11-2-53, shall have the power to hear and decide appeals where it is alleged there is error in any order, requirement, decision or determination made by an administrative official or agency based on or made in the enforcement of any zoning regulation or any regulation relating to the location of structures or to interpret any map. (Ord. 2004-01, 9-28-2004)

Section 5.04. Appeals, Record and Appeal, Hearing and Stays. Appeals to the County Zoning Commission acting as the Board of Adjustment, pursuant to SDCL 11-2-53, may be taken by any person aggrieved or by an officer, department, board or bureau of the County or city/town affected by any decision of the administrative officer. Such appeals shall be taken within a reasonable time, as provided by the rules of the Board of Adjustment by filing with the officer from whom the appeal is taken and with the Board of Adjustment a notice of appeal specifying the grounds thereof. The officer from whom the appeal is taken shall forthwith transmit to the Board of Adjustment all the papers constituting the record upon which the action appealed from was taken.

An appeal stays all proceedings in furtherance of the action appealed from unless the officer from whom the appeal is taken certifies to the Board of Adjustment after the notice of appeal shall have been filed with him, that by reason of facts stated in the certificate a stay would, in his opinion, cause imminent peril to life or property.

In such case, proceedings shall not be stayed otherwise than by a restraining order which may be granted by the Board of Adjustment or by a court of record on application on notice to the officer from whom the appeal is taken and on due cause shown.

The Board of Adjustment shall fix a reasonable time for the hearing of the appeal, give public notice thereof, as well as due notice to the parties in interest, and decide the same within a reasonable time. Upon the hearing, any party may appear in person or by agent or by attorney. In exercising the above-mentioned powers, the Board of Adjustment may reverse or affirm, wholly or partly, or may modify the order, requirement, decision or determination appealed from, and may make such order, requirement, decision or determination as ought to be made, and to that end shall have all the powers of the officer from whom the appeal is taken.

The concurring vote of two-thirds (2/3) of the Board of Adjustment shall be necessary to reverse any order, requirement, decision or determination upon which it is required to pass under this regulation. (Ord. 2004-01, 9-28-2004)

Section 5.05. Powers and Jurisdiction Relating to Conditional Use Permits. The County Zoning Commission shall have the power to hear and decide in accordance with the provisions of this regulation, requests for Conditional Use Permits or for decisions upon other special questions upon which the Zoning Commission is authorized by this regulation to pass; to decide such questions as are involved in determining whether special conditions and safeguards as are appropriate under this regulation, or to deny Conditional Use Permits when not in

harmony with the purpose and intent of this regulation. A Conditional Use Permit shall not be granted by the Zoning Commission unless and until:

a. A written application for a Conditional Use Permit is submitted, indicating the section of this regulation under which the Conditional Use Permit is sought and stating the grounds on which it is requested. Applications are due the second Tuesday of the month for the following month's meeting.

b. Notice of hearing shall be published twice in a paper of general circulation in the area affected.

c. Adjoining landowners shall be notified by First Class mail at their last known address of the public hearing time and date at least seven (7) days prior to the hearing.

d. The public hearing shall be held. Any party may appear in person, or by agent or attorney.

e. The County Zoning Commission shall make a finding that it is empowered under the section of this regulation described in the application to grant the Conditional Use Permit and that the granting of the Conditional Use Permit will not adversely affect the public interest. An affirmative vote of two thirds (2/3) of the full membership of the County Zoning Commission is required for approval of a Conditional Use Permit.

f. Before granting any Conditional Use Permits the County Zoning Commission shall make written findings certifying compliance with the specific rules and criteria governing individual Conditional Uses and that satisfactory provision and arrangements have been made concerning the following, where applicable:

    1. Entrance and exit to property and proposed structures thereon with particular reference to automotive and pedestrian safety and convenience, traffic flow and control, and access in case of fire or catastrophe.

    2. The roads providing access to the property are adequate to meet the transportation demands of the proposed conditional use. The County Zoning Commission may require the applicant to enter into a written contract with any affected township or other governmental unit regarding the upgrading and continued maintenance of any roads used for

the conditional use requested prior to the issuance of a conditional use permit.

3. Off-street parking and loading areas where required, with particular attention to the items in (a) above and economic, noise, glare or other effects of the Conditional Use on adjoining properties and properties generally in the district.

4. Utilities, refuse and service areas, with reference to locations, availability, and compatibility.

5. Screening and buffering with reference to type, dimensions and character.

6. Signs, if any, and proposed exterior lighting with reference to glare, traffic safety, economic effect and compatibility and harmony with properties in the district.

7. Required yards and other open space.

8. General compatibility with adjacent properties and other property in the district.

g. Any Conditional Use Permit that is granted and not used within 3 years will be considered invalid.

h. The County Zoning Commission may, after notice and hearing, revoke a Conditional Use Permit in the event of a violation of any of the conditions upon which such permit was issued. In addition, the Conditional Use Permit may not be transferred during any violation. (Ord. 2004-01, 9-28-2004)

Section 5.06. Powers and Jurisdiction Relating to Variances. The County Zoning Commission acting as the Board of Adjustment pursuant to SDCL 11-2-53 shall have the power, where, by reason of exception, narrowness, shallowness or shape of a specific piece of property at the time of the enactment of this regulation, or by reason of exceptional topographic conditions or other extraordinary and exceptional situation or condition of such piece of property, the strict application of any regulation under this regulation would result in peculiar and exceptional practical difficulties to, or exceptional and undue hardships upon, the owner of such property, to

authorize, upon an appeal relating to the property, a variance from such strict application so as to relieve such difficulties or hardship, if such relief may be granted without substantially impairing the intent, spirit and purpose of this regulation. An affirmative vote of two thirds (2/3) of the full membership is required to grant a variance.

1. No such variance shall be authorized by the Board of Adjustment unless it finds that the strict application of the Regulation would produce undue hardship; such hardship is not shared generally by other properties in the same zoning district and the same vicinity; the authorization of such variance will not be of substantial detriment to adjacent property and the character of the district will not be changed by the granting of the variance; and the granting of such variance is based upon reasons of demonstrable and exceptional hardship as distinguished from variations for purposes of convenience, profit, and caprice.

2. No variances shall be authorized unless the Board of Adjustment finds that the condition or situation of the property concerned or the intended use of the property is not of so general or recurring a nature as to make reasonably practicable the formulation of a general regulation to be adopted as an amendment to this regulation.

3. A variance from the terms of this regulation shall not be granted by the Board of Adjustment unless and until a written application for a variance is submitted demonstrating that special conditions and circumstances exist which are peculiar to the land, structure, or buildings in the same district; that literal interpretation of the provisions of this regulation would deprive the applicant of rights commonly enjoyed by other properties in the same district under the terms of this regulation; that the special conditions and circumstances do not result from the actions of the applicant, and that granting the variance requested will not result from the actions of the applicant, and that granting the variance requested will not confer on the applicant any special privilege that is denied by this regulation to other lands, structures, or buildings in the same district.

4. No non-conforming use of neighboring lands, structures, or buildings in the same district and no permitted or non-conforming use of lands, structures, or buildings in other districts shall be considered grounds for the issuance of a variance.

5. Notice of public hearing shall be given as in Section 5.05; the public hearing shall be held. Any party may appear in person, or by agent or by attorney; the Board of Adjustment shall make findings that the requirements of this section have been met by the applicant for a variance; the Board of Adjustment shall further make a finding that the reasons set forth in the application justify the granting of the variance, and that the variance is the minimum variance that will make possible the reasonable use of the land, building or structure; the Board of Adjustment shall further make a finding that the granting of the variance will be in harmony with the general spirit, purpose and intent of this regulation, will not be injurious to the neighborhood, or otherwise detrimental to the public welfare.

6. In granting any variance, the Board of Adjustment may prescribe appropriate conditions and safeguards in conformity with this regulation. Violation of such conditions and safeguards, when made a part of the terms under which the variance is granted, shall be deemed a violation of this regulation and punishable under the terms of this regulation.

7. Under no circumstances shall the Board of Adjustment grant a variance to allow a use not permissible under the terms of this regulation in the district involved, or any use expressly or by implication prohibited by the terms of this regulation in said district.

8. Any variance that is granted and not used with three (3) years will be considered invalid. (Ord. 2004-01, 9-28-2004)

Section 5.07. Appeals to a Court of Record. Any person or persons, jointly or severally aggrieved by a decision of the County Zoning Commission or Board of Adjustment or any taxpayer, landowner, or any officer, department, board, or bureau of the County may appeal as provided by SDCL Chapter 11-2. (Ord. 2004-01, 9-28-2004)

ARTICLE 6.00
DUTIES OF COUNTY ZONING OFFICER, BOARD OF COUNTY COMMISSIONERS AND COURTS ON MATTERS OF APPEAL

It is the intent of this regulation that all questions of interpretation and enforcement shall be first presented to the County Zoning Officer, and that such questions shall be presented to the County Zoning Commission or Board of Adjustment only on appeal from the decision of the administrative official, and that recourse from the decision of the County Zoning Commission or Board of Adjustment shall be to the courts as provided by law.

It is further the intent of this regulation that the duties of the Board of County Commissioners in connection with this regulation shall not include hearing and deciding questions of interpretation and enforcement that may arise. (Ord. 2004-01, 9-28-2004)

ARTICLE 7.00
ENFORCEMENT

Section 7.01. Enforcing officer. The provisions of this regulation shall be administered and enforced by a County Zoning officer appointed by the Board of County Commissioners, who shall have the power to make inspection of building or premises necessary to carry out his duties in the enforcement of this regulation.

Section 7.02. Building Permit.

1. Building Permit Required. It shall be unlawful to commence the excavation for or the construction of any building, structure, or any accessory building, or to commence the moving or alteration of any buildings, including accessory buildings, until the County Zoning Officer has issued a building permit for such work. Furthermore, it shall be unlawful to commence work until the building permit is displayed in a conspicuous place visible from public right-of-way.

2. Issuance of a Building Permit. In applying to the County Zoning officer for a building permit, the applicant shall submit a dimensioned sketch or a scale plan indicating the shape, size, and height and location of all buildings, to be erected, altered, or moved and of any building already on the lot. He shall also state the existing and intended use of all such buildings, the location of existing or proposed water and sewer facilities, and supply such other information as may be required by the County Zoning Officer for determining whether the provisions of this regulation are being observed. If the proposed excavation or construction as set forth in the application are in conformity with the provisions of this regulation, and other regulations of the County then in force, the County Zoning Officer shall issue a building permit for such excavation or construction. If a building permit is refused, the County Zoning officer shall state such refusal in writing, with the cause, and shall thereupon mail notice of such refusal to the applicant at the address indicated upon the application. The County Zoning Officer shall grant or deny the permit within a reasonable time from the date the application is submitted.

3. The issuance of a building permit shall, in no case, be construed as waiving any provisions of this regulation. All building permits shall be valid for eighteen (18) months after the date of issuance; however, a building permit shall become void six (6) months from the date of issuance unless substantial progress has been made by that date on the project described therein. A six (6) month extension may be granted if requested in writing at least one month prior to the expiration date. Maximum extension authorized is six (6) months. (Ord. 2006-02, 3-28-2006)

Section 7.03. Violation and Penalty.

It is declared unlawful for any person to violate any of the terms and provisions of these regulations or other official control adopted by the Board of County Commissioners pursuant thereto. Violation thereof shall be a misdemeanor and may be punishable by a fine up to one hundred dollars ($100) for each and every day that any violator fails to comply with the provisions of these regulations. All fines for violation shall be paid to the County Auditor and shall be credited to the General Fund of the County.

In the event of a violation or a threatened violation of these regulations or restrictions, the Board of County Commissioners or any member thereof, in addition to other remedies, may institute an appropriate action or proceeding to seek an injunction in a court of competent jurisdiction to prevent, restrain, correct or abate such violation or threatened violation, and it is the duty of the State's Attorney to institute such action.

Any taxpayer of the County may institute mandamus proceedings in Circuit Court to compel specific performance by the proper official or officials of any duty required by these regulations.

ARTICLE 8.00
SCHEDULE OF FEES, CHARGES, AND EXPENSES

Section 8.01. The Board of County Commissioners shall establish a schedule of fees, charges, and expenses and a collection procedure for building permits, certificates of zoning compliance, appeals, and other matters pertaining this regulation. The schedule of fees shall be posted in the office of the County Zoning Officer and may be altered or amended only by the Board of County Commissioners. Changes in the zoning regulations or map which are initiated by incorporated communities or the County shall not require a fee.

Until all applicable fees, charges, and expenses have been paid in full, no action shall be taken on any application or appeal.

ARTICLE 9.00
LEGAL STATUS PROVISIONS

Section 9.01. Separability. Should any article, section or provision of this regulation be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of this regulation as a whole or any part thereof, other than the part so declared to be unconstitutional or invalid.

Section 9.02. Purpose of Catch Heads. The catch heads appearing in connection with the foregoing sections are inserted simply for convenience, to serve the purpose of an index and they shall be wholly disregarded by any person, officer, court or other tribunal in construing the terms and provisions of this regulation.

Section 9.03. Effective Date. This regulation shall take effect and be in force from and after its passage and publication according to law.

ARTICLE 10.00
AMENDMENTS

Section 10.01. Petition by Individual Landowner for Change in Zoning -- Notice to Abutting Landowners. An individual land-owner may petition the Board to change the zoning of all or any part of his property. Such petitioning landowner shall also notify all other abutting landowners by registered or certified mail of the petitioned zoning change at least one (1) week prior to any public hearing held thereon by the Board of County Commissioners. Property shall be considered as abutting even though it may be separated from the property of the petitioner by a public road or highway.

Section 10.02 Hearing by Planning Commission on Proposed Change Publication of Notice. Upon such filing or upon separate request by the Board, the Planning Commission shall hold a public hearing not less than fifteen (15) days after notice published in a newspaper of general circulation in the area affected. At such public hearing, any person may appear and request or protest the requested change.

Section 10.03. Hearing by County Commissioners. Following receipt of any petition as provided in Section 901, the Board shall hold a public hearing after notice in a newspaper of general circulation. The County Auditor shall publish a notice once a week for two (2) successive weeks of the time and place when and where such hearing shall be held and a notice that all interested persons may appear and be heard.

Section 10.04. Adoption or Rejection County Commissioners -- Publication of Change. The Board of County Commissioners shall thereafter by resolution or ordinance, as appropriate, either adopt or reject such amendment, supplement, change, modification or repeal, and if it is adopted by the Board of County Commissioners, a summary of the same shall be prepared by the County Planning Commission, reviewed by the State's Attorney, and published once in the official newspaper in such County and take effect on the twentieth (20th) day after its publication.

ARTICLE 11.00
AGRICULTURAL DISTRICTS

Section 11.01. "A" Agricultural District

Purpose

This district is established to maintain and promote farming and related activities within an environment which is generally free of other land use activities. Residential development will be discouraged to minimize conflicts with farming activities and reduce the demand for expanded public services and facilities.

Covenants/Waivers

A RIGHT TO FARM Covenant shall be filed with Register of Deeds on all property to be used as a site for a newly constructed residence (farm and non-farm) or church prior to issuance of a building permit and to all new subdividing of property by platting. Such Right to Farm covenant shall be in the form as set forth in Addendum 1 to this Ordinance. (Ord. 2006-03, 9-26-2006)

Permitted Uses

1. Agricultural activities and farm related buildings, including Class E but excluding Classes A, B, C and D Concentrated Animal Feeding Operations.

2. Established residence.

3. Residential dwelling not within 1,320 feet of a Concentrated Animal Feeding Operation unless waiver registered on deed.

4. Single family residences including manufactured, mobile and modular homes on less than 35 acre lots provided that such residences are on an established farm building site, abandoned school site, or are lots of record and further provided that the proposed site has established road access, the lot has clearly delineated boundaries and the site can meet minimum water and sewer standards.

5. Fisheries services and game propagation areas;

6. Orchards, tree farms, truck gardening, nurseries and greenhouses;

7. Public parks and recreation areas;

8. Home occupations.

9. Accessory buildings of 120 square feet or less are not required to have a building permit.

Conditional Uses

1. Airports and airstrips;

2. Church or cemetery;

3. Golf course, golf driving range;

4. Sand, gravel or quarry operation, mineral exploration and extraction;

5A. Rock Crushers (Ord. 2008-04, 3-18-2008);

5B. Concrete Mixing Plant (Ord. 2008-04, 3-18-2008)

5C. Asphalt Mixing Plant (Ord. 2008-04, 3-18-2008);

6. Contractors shops and yards;

7. Sanitary landfills provided:

   a. The site meets the requirements of the State Department of Water and Natural Resources.

   b. A site plan is provided indicating the following information:

      (1) Present topography, soil types, depth to groundwater.

      (2) Location of existing water drainage, existing buildings, existing shelterbelts.

      (3) Identification of roads leading to the site.

      (4) Proposed changes at the site such as new shelterbelts, new buildings, changes in topography, new fence lines.

      (5) Proposed monitoring wells, etc.

   c. A minimum of 1,320 feet from the landfill property line to the nearest residence; excluding the residence of the landfill operator.

8. Institution farms, including religious farming communities;

9. Sewage treatment plants;

10. Fur farms;

11. Class A, B, C, and D Concentrated Animal Feeding Operations. See Section 1211.

12. Stables, dog/cat kennels;

13. Veterinary clinics;

14. Junk/salvage/recycling yards, provided that they meet the following minimum requirements and other restrictions that the County Planning Commission may deem appropriate:

    a. Storage for junk/salvage/recycling yards shall be set back a minimum of two hundred (200) feet from any adjoining road right-of-way.

    b. Junk/salvage/recycling yards shall be screened on all sides by a solid wall at least two (2) feet above the highest stock pile or by a shelterbelt of shrubs and trees as approved by the Planning Commission; screening must be maintained in good repair.

    c. No junk/salvage/recycling yards will be allowed within one thousand three hundred twenty (1,320) feet of any residence other than that of the owner of the land.

    d. All junk/salvage/recycling yards must have a minimum lot of ten (10) acres.

15. Water pumping stations, elevated tanks and similar essential public utilities and service structures.

16. One manufactured or mobile home as a secondary residence, on an established farmstead to be used for the occupancy of a farm employee, or by parents, grandparents, children or brothers and sisters of the occupant of the land, provided that said home is removed within ninety (90) days of the vacation there from by the qualified occupant or occupants, (Ord. 2006-02, 3-28-2006)

17. Commercial radio and TV towers;

18. Commercial public entertainment enterprises not normally accommodated in commercial areas, including but not limited to, the following: music concerts, rodeos, tractor pulls, and animal and vehicle races;

19. Seasonal retail stands, excluding garden produce but including fireworks stands;

20. Home extended business;

21. Caretaker residences associated with public or private enterprise;

22. Lodging house.

23. Agricultural processing plants.

24. Spreading of manure with irrigation system.

25. Wind Energy Systems (WES)

26. The County Zoning Commission may permit other uses which, in its opinion, are not detrimental to other uses and are in the general character of the Agricultural District. (Ord. 2004-01, 9-28-2004)

Area Regulations

All buildings must be set back from road right-of-way lines and must be lot line to comply with the following yard requirements:

1. Lot Size: All lots for purposes of residential use unless otherwise provided for in this ordinance, shall be a minimum of thirty five (35) acres, except as provided in Item 7 below.

2. Front Yard: The minimum depth of the front yard shall be one hundred (100) feet. A corner lot will have two front yards.

3. Side Yard: The minimum width of a side yard shall be twenty-five (25) feet.

4. Rear Yard: The minimum depth of a rear yard shall be fifty (50) feet.

5. Maximum Lot Coverage: Dwellings and buildings accessory thereto shall cover not more than twenty-five (25) percent of the lot area.

6. Shelterbelts. (See Article 19.00.)

7. The County Zoning Commission may allow a smaller minimum lot size for the "A" Agricultural District under the following condition:

   a. Where a second single family home is requested on an established farmstead, so long as it is immediately connected to the existing farming operation.

   b. Single family residences legally built under these ordinances shall be considered an established farm building site after it has existed ten (10) years.

   c. The County Zoning Commission may deny any request for a smaller minimum lot size if it is determined to be an attempt to circumvent the intent or requirements of this ordinance.

   d. Conditional use permitting of a Religious farming community will include the authorization to construct or utilize an existing building as a church and to construct multiple single family dwelling units. A detailed site plan will be required, and all federal, state, and local laws will be strictly enforced. If a confined animal feeding operation (CAFO) or any other conditional use permitted uses are planned a separate application will be required. In the event that a Religious farming community ceases to exist all single family dwelling units will be required to be removed. (Ord. 2004-01, 9-28-2004)

8. Non-conforming lots of record that are allowed to develop must meet the following setbacks:

	Per Unit Min. Density Sq. Ft	Min. Lot Area Sq. Ft. Well	Min. Lot Area Sq. Ft. Rural Water	Min. Lot Width	Min. Front Yard	Min. Side Yard	Rear Yard
Single Family Dwelling	20,000’	43,560’	20,000’	60’	50’	8’	50’
Other Allowable Uses	20,000’	20,000’	20,000’	60’	50’	8'	50’

Height Regulations

No main buildings shall exceed two and one-half (2 1/2) stories or thirty-five (35) feet in height. Exceptions include the following:

1. Agricultural buildings;
2. Chimneys, smokestacks, cooling towers;
3. Radio and TV towers;
4. Water tanks;
5. Elevators;
6. Others, providing that they are not used for human occupancy.
7. Wind Energy Systems (WES)

ARTICLE 12.00
COMMERCIAL/ INDUSTRIAL DISTRICTS

Section 12.01. "CI" Commercial/Industrial District

Purpose

The "CI" District is intended for commercial and industrial uses which due to their size and nature require highway access.

Permitted Use

1. Permitted uses in the "A" Agricultural District except residential dwellings.

2. Manufacturing and processing plants for agricultural products and by-products and storage and related facilities for such operations.

Conditional Uses

1. Implement sales and service;

2. Truck terminals and freight warehouses;

3. Seed sales and grain storage, fertilizer and chemical storage and sales;

4. Highway and street maintenance shops;

5. Welding and machine shops;

6. Gas, oil and liquid propane stations including bulk stations;

7. Public and private utilities;

8. Livestock sales;

9. Contractors' shops and yards;

10. Wholesale distributing companies;

11. Restaurants;

12. Motels;

13. Conditional Uses in the "A" Agricultural District except residential dwellings.

14. The County Zoning Commission may permit other uses which, in its opinion, are not detrimental to other uses and are in the general character of the CI District. These may include all manufacturing and processing uses, but do not include extractive or mining operations. (Ord. 2004-01, 9-28-2004)

Highway Access

All property in the "CI" District must have access to a County, State, or Federal road.

Area Regulations

1. Lot Area. Lot area shall be determined by need, setback, side yards, rear yards, parking requirements, freight handling requirements, building site and future expansion; however, in no case shall a lot have less than two (2) acres.

   An applicant for a Conditional Use shall provide a proposed site plan which can be reviewed by the County Zoning Commission. For commercial and industrial uses, buildings shall occupy no more than twenty-five (25) percent of the lot.

2. Front Yard. There shall be a front yard on each street which a lot abuts, and which yard shall be not less than one hundred (100) feet in depth. A corner lot will have two front yards.

3. Side Yards. On lots adjacent to a residential area, all buildings and incidental areas shall be located so as to provide a minimum side yard of one hundred (100) feet, which shall be landscaped on the side adjacent to the residential area. All other side yards shall be a minimum of fifty (50) feet.

4. Rear Yards. No building shall be constructed within fifty (50) feet of the rear lot line. The rear yard shall be one hundred (100) feet if the lot abuts an interstate or major highway.

ARTICLE 13.00
LAKE/ PARK DISTRICTS

Section 13.01. “LP" Lake-Park District

Purpose

The Lake-Park District is established to provide for orderly low residential and recreational development, together with certain public facilities, customary home occupations, and certain recreation oriented commercial establishments, along lake shores.

Area Contained in “LP" District

All land, unless otherwise zoned, within one thousand (1,000) feet of the normal high water line of a designated lake shall be contained in Lake-Park Districts and usage shall conform to the regulations for this District.

Permitted Uses

1. Single-family residential usage;

2. Public parks;

3. Agriculture and horticulture uses;

4. Manufactured or modular homes. (See Minimum Mobile/ Manufactured Home Requirements, Sections 18.01 and 18.02).

5. Home occupations.

6. Accessory buildings, must be of new construction, maximum of 10’ side-walls and 1000 square feet or less and meet the required setbacks. Accessory buildings of 120 square feet or less are not required to have a building permit. (Ord. 2006-02, 3-28-2006).

Conditional Uses

1. Twin homes;

2. Private parks and camp grounds;

3. Resorts;

4. Restaurants;

5. Boat houses adjacent to lake shore;

6. Accessory building with a side-wall greater than ten (10) feet or more than 1000 square feet.

7. The County Zoning Commission may permit other uses which in its opinion are not detrimental to other uses and are in the general character of other uses in the LP District. (Ord. 2004-01, 9-28-2004)

Density, Area and Yard Regulations (Lake Front)

The Lake Park (lake front) district regulations shall be as follows:

	Per Unit Density Sq. Ft.	Min.Lot Area Sq. Ft.	Min. Shoreline Frontage	Min. Road Frontage	Min. Front Yard	Min. Side Yard	Lake Side Yard
Single Family Dwelling	20,000’	20,000’	75’	50’	25’	8'	75’
Other Allowable Uses	20,000’	20,000’	75’	50’	25’	8’	75’

1. A corner lot will have two front yards.

2. For lakes or ponds: No structure except piers and docks shall be placed at an elevation such that the lowest floor, including basement, is less than three (3) feet above the highest known water level. In those instances where sufficient data on known high water levels are not available, the elevation line of permanent terrestrial vegetation shall be used as the estimated high water elevation. when fill is required to meet this elevation, the fill shall be required to stabilize before construction is begun.

3. Sealed holding tanks for individual cabins and homes are required for all lots containing less than twenty thousand (20,000) square feet.

Density, Area and Yard Regulations (Non-Lake Front)

The Lake Park (non-lakefront) district regulations shall be as follows:

	Per Unit Density Sq. Ft	Min. Lot Area Sq. Ft.	Min. Lot Width	Min. Front Yard	Min. Side Yard	Min. Rear Yard
Single Family Dwelling	20,000’	20,000’	60’	50’	8’	50’
Other Allowable Uses	20,000’	20,000’	60’	50’	8'	50’

1. A corner lot will have two front yards.

Shoreline Alterations

These regulations are deemed necessary along the shores of natural waters to protect scenic beauty, control erosion and reduce effluent and nutrient flow from the shore land.

1. Removal of Shore Cover:

   Tree and shrub cutting in a strip paralleling the shoreline and extending thirty five (35) feet inland from all points along the normal high water mark of the shoreline shall be limited in accordance with the following provisions:

   a. Cutting shall leave sufficient cover to screen cars, dwellings, and accessory structures, except boathouses, as seen from the water, to preserve natural beauty and to control erosion.

   b. Natural shrubbery shall be preserved as far as practicable, and where removed it shall be replaced with other vegetation that is equally effective in retarding runoff, preventing erosion and preserving natural beauty.

   c. The removal of natural shrubbery and its replacement shall require the granting of a permit by the Zoning officer. Petition for such permit shall be accompanied by a plan showing the work to be accomplished. The

granting of such Conditional Use shall be conditional upon a contract requiring the petitioner to give to the Zoning officer, within one (1) year after the date of grant, satisfactory evidence of compliance with such plan or pay for the cost of such compliance by the County.

Filling, Grading, Lagooning and Dredging

1. Filling, grading, lagooning or dredging which would result in substantial detriment to natural waters by reason of erosion, sedimentation or impairment of fish and aquatic life is prohibited.

2. A permit shall be required for any filling or grading. This requirement does not apply to soil conservation practices such as terraces, runoff diversions and grassed waterways, which are used for sediment retardation.

3. Building permits shall be required for all retaining walls or structures.

ARTICLE 14.00
NATURAL RESOURCE DISTRICTS

Section 14.01. "NR" Natural Resource District

Purpose

The purpose of the Natural Resource District is to provide for the retaining of natural vegetation of a particular area, to preserve the natural environment and resources from destructive land uses and to protect wildlife habitat. Such an area may include but is not limited to flood plains of rivers, streams, and lakes, abandoned quarries, certain wetlands, natural prairies, and historical sites.

Area Contained in "NR" District

All lands, unless otherwise zoned, within three hundred (300) feet of wetlands that are totally or partially owned by the State or Federal governments as wildlife production or public shooting areas. Also lands on meandered lakes may be included.

Permitted Uses

1. Wildlife production areas;
2. Game refuges;
3. Historic sites and/or monuments;
4. Designated natural prairies;
5. Public hunting and fishing access areas.
6. Horticulture uses and livestock grazing.

Uses Permitted by Conditional Use if Deemed Not Detrimental to District

1. Transportation and utility easements and rights-of-way.
2. Utility substations;
3. Public parks and/or playgrounds;

ARTICLE 15.00
FLOOD DAMAGE PREVENTION

Article 15.00. Flood Damage Prevention Regulations

Section 15.01. Statutory Authorization Findings of Fact Purpose and Objectives

15.01.1 Statutory Authorization

The Legislature of the State of South Dakota has in SDCL Chapter 11-2 delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the County Commissioners of Brookings County, South Dakota, ordain as follows:

15.01.2 Findings of Fact

(1) The flood hazard areas of Brookings County are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

(2) These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately flood-proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

15.01.3 Statement of Purpose

It is the purpose of these regulations to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions to specific areas by provisions designed:

(1) To protect human life and health;

(2) To minimize expenditure of public money for costly flood control projects;

(3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) To minimize prolonged business interruptions;

(5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;

(6) To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;

(7) To ensure that potential buyers are notified that property is in an area of special flood hazard; and,

(8) To ensure that those who occupy the areas of special flood hazards assume responsibility for their actions.

15.01.4 Methods of Reducing Flood Losses

In order to accomplish its purposes, these regulations include methods and provisions for:

(1) Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

(2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

(3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;

(4) Controlling filling, grading, dredging, and other development which may increase flood damage; and,

(5) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

Section 15.02. Definitions

Unless specifically defined below, words or phrases used in these regulations shall be interpreted so as to give them the meaning they have in common usage and to give these regulations the most reasonable application.

(1) Area of Special Flood Hazard means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year.

(2) Base Flood means the flood having a one percent chance of being equaled or exceeded in any given year.

(3) Corner Lot is a lot with two front yards.

(4) Development means any man-made change to improved or unimproved real estate, including but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.

(5) Flood or Flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:

(a) The overflow of inland or tidal waters and/or

(b) The unusual and rapid accumulation of runoff of surface waters from any source.

(6) Flood Insurance Rate Map (FIRM) means an official map of a community on which the Federal Emergency Management Agency has delineated areas of special flood hazard designated as Zone A.

(7) Manufactured Home is a building, used exclusively for human habitation, which is constructed in a manufacturing facility after June 15, 1976, in compliance with the National Manufactured Home Construction and Safety Standards Act and transportable in one or more sections to a building site.

(8) Mobile Home is a building, used exclusively for human habitation, constructed in a manufacturing facility prior to June 15, 1976, the effective date of the National Manufactured Home Construction and Safety Standards Act, which is transported on a permanent chassis to a building site. A mobile home shall be construed to remain a mobile home subject to

all regulations applying thereto, whether or not wheels, axles, hitch or other appurtenances of mobility are removed and regardless of the nature of the foundation provided. A mobile home shall not be construed to be a travel trailer or other form of recreational vehicle.

(9) Modular Home is a building, used exclusively for human habitation, constructed off site and in compliance with the applicable local or state building code and which is transported on a temporary chassis to a permanent building site.

(10) Structure means a walled and roofed building or manufactured home that is principally above ground.

(11) Substantial Improvement means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

(a) Before the improvement or repair is started, or

(b) If the structure has been damaged and is being restored, before the damage occurred. For the purpose of this designation, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not, however, include either:

(a) Any project for improvement of a structure to comply with existing State or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or

(b) Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

(12) Zoning Complaints. All zoning complaints must be in writing and signed.

Section 15.03. General Provisions

15.03.1 Lands to Which This Ordinance Applies.

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of Brookings County.

15.03.2 Basis for Establishing the Areas of Special Flood Hazard.

The areas of special flood hazard identified by the Federal Emergency Management Agency in its Flood Insurance Rate Map (FIRM), dated January 1, 1987, is adopted by reference and declared to be part of these regulations. The FIRM is on file at the County Auditor's Office, Brookings County Courthouse, Brookings, SD.

15.03.3 Compliance

No structure or land shall hereafter be constructed, located, extended, or altered without full compliance with the terms of these regulations and other applicable regulations.

15.03.4 Abrogation and Greater Restrictions

These regulations are not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where these regulations and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

15.03.5 Interpretation.

In the interpretation of these regulations, all provisions shall be:

(1) Considered as minimum requirements;

(2) Liberally construed in favor of the governing body; and

(3) Deemed neither to limit nor repeal any other powers granted under State statutes.

15.03.6 Warning and Disclaimer of Liability

The degree of flood protection required by these regulations is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. These regulations do not imply that land outside the areas of special flood hazards or uses permitted within such areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. These regulations shall not create liability on the part of Brookings County, any officer or employee thereof, or the Federal Emergency Management Agency for any flood damages that result from

reliance on these regulations or any administrative decision lawfully made thereunder.

Section 15.04. Administration

15.04.1 Establishment of Development Permit

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 15.03.2. Application for a development permit shall be made on forms furnished by the Zoning officer and may include, but not be limited to: Plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the forgoing. Specifically, the following information is required:

(1) Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;

(2) Elevation in relation to mean sea level to which any structure has been flood proofed;

(3) Certification by a registered professional engineer or architect that the flood proofing methods for any nonresidential structure meet the flood proofing criteria in Section 15.05.2-2; and

(4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

15.04.2 Designation of the Zoning Officer

The Zoning officer is hereby appointed to administer and implement these regulations by granting or denying development permit applications in accordance with their provisions.

15.04.3 Duties and Responsibilities of the Zoning Officer

Duties of the Zoning Officer shall include but not be limited to:

15.04.3-1 Permit Review

(1) Review of all development permits to determine that the permit requirements of these regulations have been satisfied.

(2) Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.

(3) Review all development permits to determine if the proposed development adversely affects the flood carrying capacity of the area of special flood hazard. For the purposes of these regulations, "adversely affects" means damage to adjacent properties because of rises in flood stages attributed to physical changes of the channel and the adjacent overbank areas.

(a) If it is determined that there is no adverse effect and the development is not a building, then the permit shall be granted without further consideration.

(b) If it is determined that there is an adverse effect, then technical justification (i.e., a registered professional engineer's certification) for the proposed development shall be required.

(c) If the proposed development is a building, then the provisions of these regulations shall apply.

15.04.3-2 Uses of Other Base Flood Data

When base flood elevation data has not been provided in accordance with Section 15.03.2, Basis for Establishing the Areas of Special Flood Hazard, the Zoning officer shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source as criteria for requiring that new construction, substantial improvements, or other development in Zone A are administered in accordance with Section 15.05.2, Specific Standards.

15.04.3-3 Information to be Obtained and Maintained.

(1) Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

(2) For all new or substantially improved flood proofed structures:

(a) Verify and record the Actual elevation (in relation to mean sea level) to which the structure has been flood proofed.

(b) Maintain the flood proofing certification required in Section 15.04.1 (3).

(3) Maintain for public inspection all records pertaining to the provisions of these regulations.

15.04.3-4 Alteration of Watercourses

(1) Notify adjacent communities and Emergency and Disaster Services, Pierre, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

(2) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

15.04.3-5 Interpretation of FIRM Boundaries

Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, there appears to be a conflict between a mapped boundary and actual field conditions).

Section 15.05. Provisions for Flood Hazard Reduction

15.05.1 General Standards

In all areas of special flood hazards, the following standards are required:

15.05.1-1 Anchoring

(1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure and capable of resisting the hydrostatic and hydrodynamic loads.

(2) All manufactured homes must be elevated and anchored to resist flotation, collapse or lateral movement and capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces. Specific requirements may be:

(a) Over-the-top ties be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, with manufactured homes less than 50 feet long requiring one additional tie per side.

(b) Frame ties must be provided at each corner of the home with five additional ties per side at intermediate points, with manufactured homes less than 50 feet long requiring four additional ties per side;

(c) All components of the anchoring system be capable of carrying a force of 4,800 pounds; and

(d) Any additions to the manufactured home must be similarly anchored.

15.05.1-2 Construction Materials and Methods

(1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(2) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(3) All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

15.05.1-3 Utilities

(1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

(2) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and

(3) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

15.05.1-4 Subdivision Proposals

(1) All subdivision proposals shall be consistent with the need to minimize flood damage;

(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;

(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and

(4) Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least 50 lots or five acres (whichever is less).

15.05.1-5 Encroachments

Encroachments, including fill, new construction, substantial improvements, and other development shall be prohibited in any floodway unless a technical evaluation demonstrates that the encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge.

15.05.2 Specific Standards

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 15.04.3-2, Use of Other Base Flood Data, the following standards are require.

15.05.2-1 Residential Construction

New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to one foot above the base flood elevation.

15.05.2-1.1 Below-Grade Residential Crawlspace Construction

New construction and substantial improvement of any below-grade crawlspace shall:

(1) Have the interior grade elevation that is below base flood elevation no lower than two feet below the lowest adjacent grade;

(2) Have the height of the below-grade crawlspace measured from the interior grade of the crawlspace to the top of the foundation wall, not exceed four feet at any point;

(3) Have an adequate drainage system that allows floodwaters to drain from the interior area of the crawlspace following a flood;

(4) Be anchored to prevent flotation, collapse, or lateral movement of the structure and be capable of resisting the hydrostatic and hydrodynamic loads;

(5) Be constructed with materials and utility equipment resistant to flood damage;

(6) Be constructed using methods and practices that minimize flood damage;

(7) Be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

(8) Be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

(a) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;

(b) The bottom of all openings shall be no higher than one foot above grade;

(c) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters. (Ord. 2004-01, 9-28-2004)

15.05.2-2 Nonresidential Construction

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to one foot above the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

(1) Must be flood proofed so that below the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water;

(2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

(3) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this paragraph. Such certifications shall be provided to the official as set forth in Section 15.04.3-3(2).

ARTICLE 16.00
AQUIFER PROTECTION

Section 16.01. Aquifer Protection Overlay District.

Purpose

The Brookings County Planning Commission and Board of County Commissioners recognize (1) that residents of Brookings County rely exclusively on ground water for a safe drinking water supply and (2) that certain land uses in Brookings County can contaminate ground water particularly in shallow/surficial aquifers.

The purpose of the Aquifer Protection Overlay District is to protect public health and safety by minimizing contamination of the shallow/surficial aquifers of Brookings County. It is the intent to accomplish this, as much as possible, by public education and securing public cooperation.

Appropriate land use regulations will be imposed, however, which are in addition to those imposed in the underlying zoning districts or in other county regulations. It is not the intent to grandfather in existing land uses which pose a serious threat to public health through potential contamination of public water supply well head areas.

Definitions

1. Aquifer. A geologic formation, group of formations or part of a formation capable of storing and yielding ground water to wells or springs.

2. Best Management Practices (BMP). means schedules of activities, prohibitions of practice, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMP's also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge, manure disposal, manure application, waste or manure stockpiles, or drainage from raw material storage.

3. Buffer Zone. An area outside and adjacent to Zone A that has been delineated to account for possible changes in the boundaries of Zone A due to effects of irrigation pumping.

4. Chemigation. The process of applying agricultural chemicals (fertilizer or pesticides) using an irrigation system by injecting the chemicals into the water.

5. Class V Injection Well. A conduit through which potentially contaminated but generally non-hazardous fluids can move from the land surface to the subsurface; the types of primary concern are (1) commercial/industrial facility septic tanks when they are used to dispose of more than domestic wastewater and (2) dry wells for repair/service bay drains at facilities servicing motorized vehicles/ equipment.

6. Concentrated Animal Feeding Operation See Article 22.00.

7. Contamination. The process of making impure, unclean, inferior, or unfit for use by introduction of undesirable elements.

8. Contingency Plans. Detailed plans for control, re-containment, recovery and clean up of hazardous materials released during fires, equipment failures, leaks and spills.

9. Corner Lot is a lot with two front yards.

10. Development.The carrying out of any construction, reconstruction, alteration of surface or structure or change of land use or intensity of use.

11. Facility. Something that is built, installed or established for a particular purpose.

12. Grey Water. All domestic wastewater except toilet discharge water.

13. Hazardous Materials. A material which is defined in one or more of the following categories.

    a. Ignitable: A gas, liquid or solid which may cause fires through friction, absorption of moisture or which has low flash points. Examples: white phosphorous and gasoline.

    b. Carcinogenic: A gas, liquid or solid which is normally considered to be cancer causing or mutagenic. Examples: PCBs in some waste oils.

    c. Explosive: A reactive gas, liquid or solid which will vigorously and energetically react uncontrollably if exposed to heat, shock, pressure or combinations thereof. Examples: dynamite, organic peroxides and ammonium nitrate.

d. Highly Toxic: A gas, liquid or solid so dangerous to man as to afford an unusual hazard to life. Examples: parathion and chlorine gas.

e. Moderately Toxic: A gas, liquid or solid, which through repeated exposure or in a single large dose can be hazardous to man. Example: atrazine.

f. Corrosive: Any material, whether acid or alkaline, which will cause severe damage to human tissue, or in case of leakage might damage or destroy other containers of hazardous materials and cause the release of their contents. Examples: battery acid and phosphoric acid.

14. Manure Storage Area. An area for the containment of animal manure in excess of 8,000 pounds or 1,000 gallons.

15. Leaks and Spills. Any unplanned or improper discharge of a potential contaminant including any discharge of a hazardous material.

16. Pasture. A field that provides continuous forage to animals without depletion of forage matter.

17. Primary Containment Facility. A tank, pit, container, pipe or vessel of first containment of a liquid or chemical.

18. Secondary Containment Facility. A second tank, catchments pit, pipe or vessel that limits and contains liquid or chemical leaking or leaching from a primary containment area. Monitoring and recovery are required.

19. Shallow/Surficial Aquifer. An aquifer in which the permeable media (sand and gravel) starts at the land surface or immediately below the soil profile. The main shallow/ surficial aquifer in Brookings County is the Big Sioux Aquifer.

20. Ten Year Time of Travel Distance. The distance that ground water will travel in ten years. This distance is a function of the permeability and slope of the aquifer.

21. Zone of Contribution. The entire area around a well or well field that is recharging or contributing water to the well or well field.

22. Zoning Complaints. All zoning complaints must be in writing and signed.

Establishment and Delineation of Aquifer Protection Overlay Zones.

Boundaries for the aquifer protection zones for the Aquifer Protection Overlay District are shown on published maps entitled "Well head Protection Area Maps, Brookings County Shallow Aquifer Map" dated May, 1988, with pages 5 and 9 amended in January of 1999, as drawn by Banner Associates. Said maps are hereby adopted by reference as part of this ordinance as if the maps were fully described herein. In addition to the before mentioned maps the South Dakota Department of Environment and Natural Resources, Division of Financial and Technical Assistance, Geological Survey Aquifer Materials Map 19 dated 2004 will be used to further identify aquifer boundaries. In the event of a conflict between such maps as to the area covered by the aquifer at a given location, then the map showing the larger aquifer area shall be followed. (Ord. 2006-02, 3-28-2006).

The shallow/surficial aquifer boundary was mapped using data from the South Dakota Geological Survey and United States Geological Survey. This map only serves as a general guide to the location of these aquifers. County studies and other information shall be used, where available, to better determine more precise aquifer locations. Aquifer boundaries are drawn at the discretion of geologists and hydrologists based on best available information. Therefore, actual site specific aquifer boundaries may differ from the attached map and other information. Hydrogeologic information is necessary to verify the location of a concentrated animal feeding operation in relation to an underlying shallow aquifer.

Zone A -- Aquifer Critical Impact Zone.

Zone A, the well head protection area, is the zone of contribution mapped around all public water supply wells or well fields and includes land upgradient to the ten year time of travel boundary plus contributing drainage areas, as delineated on the official copy of published maps representing sloping, adjacent lands not underlain by the aquifer from which surface water can flow directly onto Zone A.

Permitted uses in Zone A, Provided They Meet Appropriate Performance Standards Outlined For Aquifer Protection Overlay Zones:

1. Agriculture;

    a. Application of manure is permitted with an approved nutrient management plan.

2. Horticulture;

3. Park, greenways or publicly owned recreational areas;

4. Necessary public utilities/facilities designed so as to prevent contamination of ground water.

Conditional Uses in Zone A:

The following uses are permitted only under the terms of a Conditional Use and must conform to provisions of the underlying zoning district and meet the Performance Standards outlined for the Aquifer Protection Overlay Zones.

1. Expansion of existing conforming and non-conforming uses to the extent allowed by the underlying district. The County Zoning Commission shall not grant approval unless it finds such expansion does not pose greater potential contamination to ground water than the existing use.

2. Sediment basins will be allowed on a case-by-case basis and must be constructed to current NRCS standards and specifications.

Prohibited Uses in Zone A:

The following uses are expressly prohibited in Zone A:

1. New Concentrated Animal Feeding Operations after adoption of this ordinance.

2. Existing Concentrated Animal Feeding Operations will not be able to expand beyond a total of 500 animal units (Class D).

3. Earthen storage basins and lagoons.

4. Disposal of or stockpiling of solid waste.

5. Post harvest application of nitrogen fertilizer prior to October 15th except for the spreading of manure.

6. Storage of road salt or disposal of snow containing deicing chemicals.

7. Processing and storage of PCB containing oils;

8. Car washes;

9. Auto service, repair or painting facilities and junk or salvage yards;

10. Disposal of radioactive waste;

11. Graveyards or animal burial sites;

12. Open burning and detonation sites;

13. All other facilities involving the collection, handling, manufacture, use storage, transfer or disposal of any solid or liquid material or waste having a potentially harmful impact on ground water quality;

14. Land spreading or dumping of petroleum-contaminated soil, waste oil or industrial wastes.

15. Class V injection wells.

16. All uses not permitted or not permitted as Conditional Uses in Zone A.

Zone B -- Aquifer Secondary Impact Zones

Zone B is established as the remainder of the mapped shallow/ surficial aquifer not included in Zone A.

This portion of the aquifer is being protected because (1) it is a valuable natural resource for future development, (2) it provides drinking water supply for individual households, (3) contamination is not justified, even though this area is not a public water supply wellhead and (4) contaminants could eventually reach Zone A.

Permitted Uses in Zone B:

1. All uses permitted in the underlying zoning districts provided that they can meet the Performance standards as outlined for the Aquifer Protection Overlay Zones.

Conditional Uses in Zone B:

1. New Class D and expansion of existing Class D up to 999 animal units (Class C).

2. Sediment basins will be allowed on a case-by-case basis and must be constructed to current NRCS standards and specifications.

3. All Conditional Uses allowed in underlying districts may be approved by the County Zoning Commission provided they can meet Performance Standards outlined for the Aquifer Protection Overlay Zones.

Prohibited Use in Zone B:

The following use is expressly prohibited in Zone B:

1. New and expansion of Class A, B and C Concentrated Animal Feeding Operations.

2. Earthen storage basins and lagoons.

3. Post harvest application of nitrogen fertilizer prior to October 15th except for the spreading of manure.

4. Land spreading or dumping of petroleum-contaminated soil, waste oil or industrial wastes.

5. Class V injection wells.

Performance Standards:

The following standards shall apply to land uses in Zones A and B of the Aquifer Protection Overlay Districts:

1. New or replacement septic tanks and associated drain fields for containment of human or animal wastes must conform with regulations established by the State Department of Water and Natural Resources.

2. Any facility involving the collection, handling, manufacture, use, storage, transfer or disposal of any solid or liquid material or wastes, except for spreading of manure, in excess of 1000 pounds and/or 100 gallons which has the potential to contaminate ground water must have a secondary containment system which are easily inspected and whose purpose is to intercept any leak or discharge from the primary containment vessel or structure. Underground tanks or buried pipes carrying such materials must have double walls and inspectable sumps. Pipes installed to carry diluted chemicals for chemigation are exempted and storage of liquid fertilizer for chemigation is allowed as long as a secondary containment system is used. Secondary containment for tanks used for chemigation must be in place by April 1, 1991.

3. Open liquid waste ponds containing materials referred to in (2) above will not be permitted without a secondary containment system except for community wastewater lagoons. Agricultural waste storage ponds are permitted but must be constructed in conformance with Natural Resource Conservation Service South Dakota Engineering Standard, Waste Storage Ponds 425. (See Appendix 1).

4. Storage of petroleum products in quantities exceeding fifty-five (55) gallons at one locality in one tank or series of tanks must be in elevated tanks; such tanks must have a secondary containment system noted in (2) above where it is deemed necessary by the County Zoning office.

5. Discharge of industrial process water on site is prohibited without County Zoning office approval.

6. Auto service, repair or painting facilities and junk or salvage yards in Zone B shall meet all State and Federal standards for storage, handling and disposal of petroleum products and shall properly dispose of all other potentially hazardous waste materials.

7. An acceptable contingency plan for all permitted facilities must be prepared and on file in the County Zoning Office for preventing hazardous materials from contaminating the shallow/surficial aquifer should floods, fire and other natural catastrophes or equipment failure occur:

    a. For flood control, all underground facilities shall include but not be limited to a monitoring system and secondary standpipe above the 100-year flood control level, for monitoring and recovery. For above ground facilities, an impervious dike, above the l00 year flood level and capable of containing l00 percent of the largest volume of storage, will be provided with an overflow recovery catchments area (sump).

    b. For fire control, plans shall include but not be limited to a safe fire fighting procedure, a fire retardant system and provide for dealing safely with both health and technical hazards that may be encountered by disaster control personnel in combating fire. Hazards to be considered are overhead and buried electrical lines, pipes, other buried objects and other hazardous liquids, chemicals or open flames in the immediate vicinity.

    c. For equipment failures, plans shall include but not be limited to:

Below ground level, removal and replacement of leaking parts, a leak detection system with monitoring and an overfill protection system. Above ground level, liquid and leaching monitoring of primary containment systems, their replacement or repair and cleanup and/or repair of the impervious surface.

d. For any other natural or man-caused disasters occurring, the owner and/or operator shall report all incidents involving liquid or chemical material in an endangerment of the health and /or safety of either disaster personnel and/or the public in general.

Agricultural operations are exempted from this section unless they store chemicals that are on the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) extremely hazardous substance list over the threshold planning quantity at any one time. (See Appendix 3)

The County Zoning Office, DENR and public water supply officials shall be informed within 24 hours of all leaks and spills of materials that might potentially contaminate ground water.

8. Since it is known that improperly abandoned wells can become a direct conduit for contamination of ground water by surface water, all abandoned wells should be plugged in conformance with South Dakota Well Construction Standards, Chapter 74:02:04:67-70.

Grant of Permit, Alteration of Use:

A permit will be granted when the County Zoning officer has examined the application and determined that the proposed use, activity or development meets the performance standards.

In securing a use permit, the owner/developer must make future improvements which may become necessary to prevent contamination of shallow/surficial aquifers and the owner/developer must allow County personnel to inspect any improvements to verify they meet the performance standards.

Whenever any person has obtained a permit and thereafter desires alteration of the authorized use, such persons shall apply for a new permit. The owner may appeal a County Zoning officer's decision to modify or deny a requested permit to the County Planning Commission/County Zoning Commission.

Exceptions:

1. Any lawful use in existence on the effective date of this ordinance shall be permitted to continue provided it can be shown such use does not threaten public health and safety by potential contamination of water in the shallow/surficial aquifers. Any proposed additions, changes or improvements will require a permit.

2. Storage of liquids and chemicals used in agricultural operations during spring/fall planting and crop cultivation are exempt from the requirements of this ordinance April 1 to October 1. Tanks used for chemigation are not exempt. Best Management Practices are encouraged, particularly in Zone A.

3. Storage of liquid or dry fertilizer in amounts equal to or less than 1,000 pounds or 100 gallons, stored indoors by each farm operator is exempt from the requirements of this ordinance.

Limitation of County Liability
Nothing in this ordinance shall be construed to imply that Brookings County, by issuing a permit, has accepted any of an owner/developer's liability if a permitted development contaminates water in shallow/surficial aquifers.

Underlying Zones:

Underlying zoning restrictions apply along with restrictions set forth in the Aquifer Protection Overlay District.

Saving Clause:

Should any section provision of this ordinance be declared invalid, such decision shall not affect the validity of the ordinance as a whole or any other part thereof.

ARTICLE 17.00
GENERAL REQUIREMENTS

Pursuant to the purpose of this regulation are certain general requirements that are not provided for under Articles 11.00 through 16.00. These requirements are set forth under this Article.

Section 17.01. Screening.

Where any "CI" use is adjacent to any residential district, that use (building, parking or storage) shall be appropriately screened from the residential use district by planting, except where planting may be in conflict with vision clearance.

Section 17.02. Vision Clearance on Corner Lots.

On a corner lot in any residential district, no fence, building or other structure shall be erected to a height of more than three (3) feet above the elevation of the established grade at the intersection of the streets on that part of any yard which is bounded by the street lines of the intersecting streets, either at the intersection of said street lines or within such area.

Section 17.03. Refuse.

In all zoning districts, refuse (rubbish, garbage, trash, wastes, or debris) shall be kept within a complete enclosed building or specially designed closed container made for such purpose. Owners of vacant lot shall be responsible for keeping their property free of trash.

Section 17.04. Unlicensed Vehicles.

Vehicles not in use and without current license may not be kept in any uncovered area other than a designated junk, salvage yard, or designated collection site. EXCEPTION: Antique cars being refurbished shall not be required to be kept in a covered area or in above designated areas.

Section 17.05. Minimum Water and Sewer Requirements.

A water and sewer system cannot be approved until it meets the following standards:

1. All public utilities and facilities shall be located, elevated, and constructed to minimize or eliminate flood damage; and

2. All new or replacement water supply systems and sanitary sewage systems, in addition to meeting the requirements of the South Dakota Department of Water and Natural Resources, must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.

ARTICLE 18.00
MINIMUM MOBILE/ MANUFACTURED HOME REQUIREMENTS

Section 18.01. Minimum Mobile Home/Manufactured Home Requirements

1. Any manufactured, mobile or modular home must secure a building permit from the County Zoning Officer.

2. Residences:

   a. A new residence to be used for a first occupancy, constructed off the property and moved to the location shall not require adjoining landowner's approval for the issuance of a building permit.

   b. The County Zoning Officer may issue a building permit for a previously occupied residence to be moved into an appropriate district when the application is accompanied by the written consent of one hundred percent (100%) of the adjoining landowners and one hundred (100%) of the landowners within two hundred (200) feet.

   c. In the absence of the consent of all neighbors above provided, the Brookings County Planning and Zoning Commission by a 2/3 majority may authorize the issuance of a building permit for the moving in of a previously occupied residence after a public hearing. Notice of the hearing shall be provided in writing at least fourteen (14) days prior to the hearing to all adjoining landowners and all landowners within two hundred (200) feet of the property. In determining whether or not to authorize the permit, the Board shall consider the following:

      1. Whether or not the proposed residence is consistent in character with the other residences in the area.

3. All mobile homes, regardless of location, shall be tied down as prescribed by the Protecting Manufactured homes from High Winds, TR75, issued July 1986, by the Federal Emergency Management Agency.

4. Must have been constructed after June 15, 1976 (2006-03, 9-26-2006).

Section 18.02. Moved in Buildings.

1. Any building moved into any use district must secure a building permit from the County Zoning Officer.

2. Residences:

a. A new residence to be used for a first occupancy, constructed off the property and moved to the location, shall not require adjoining landowner's approval for the issuance of a building permit.

b. The County Zoning Officer may issue a building permit for a previously occupied residence to be moved into an appropriate district when the application is accompanied by the written consent of one hundred percent (100%) of the adjoining landowners and one hundred percent (100%) of the landowners within two hundred (200) feet.

c. In the absence of the consent of all neighbors above provided, the Brookings County Planning and Zoning Commission by a 2/3 majority may authorize the issuance of a building permit for the moving in of a previously occupied residence after a public hearing. Notice of the hearing shall be provided in writing at least fourteen (14) days prior to the hearing to all adjoining landowners and all landowners within two hundred (200) feet of the property. In determining whether or not to authorize the permit, the Board shall consider the following:

    1. Whether or not the proposed residence is consistent in character with the other residences in the area.

ARTICLE 19.00
SHELTERBELT SETBACK REQUIREMENTS

Section 19.01. Shelterbelt Setback Requirements.

A shelterbelt, consisting of one (1) or more rows shall not be established within one hundred (100) feet of the road right-of-way of any road. Shelterbelts at right angles to roads shall have a minimum setback of fifty (50) feet from the right-of-way. Shelterbelts parallel or at right angle to an adjoining property line shall maintain the same setbacks as required on the right-of-way. Shelterbelts may be planted closer to the adjoining property line than required above with the written permission of the adjoining landowner. Trees used for landscaping the area immediately adjacent to farmsteads and residences are exempt from this regulation. (Ord. 2003-01, 4-01-2003)

ARTICLE 20.00
HOME OCCUPATIONS

Section 20.01. Home Occupations.

Home occupations shall be subject to the following requirements:

1. Such use shall be conducted entirely within a dwelling and carried on by not more than two (2) individuals, one of whom is the principal occupant.

2. Such use shall be clearly incidental and secondary to the use of the dwelling for dwelling purposes and shall not change the residential character thereof.

3. The total area used for such purposes shall not exceed the equivalent of one-fourth (1/4) the floor area, in square feet, of the first floor of the user's dwelling unit, if any, otherwise of the main floor of such dwelling unit; but in any instance a maximum of three hundred (300) square feet shall be allowed.

4. There shall be no advertising, display or other indications of a home occupation on the premises except as follows: (1) there is used no sign other than a non-lighted and non-reflecting name plate not more than sixteen (16) square feet in area, which name plate may designate the home occupation carried on within, and which name plate must be clearly visible at the entrance to the premises where said home occupation is carried on and must be attached to the building wherein the home occupation is conducted.

5. There shall not be conducted on the premises the business of selling stocks of merchandise, supplies, or products, provided that incidental retail sales may be made in connection with other permitted home occupations.

6. There shall be no exterior storage on the premises of material used in the home occupation or of any highly explosive or combustible material.

7. There shall be no offensive noise, vibration, smoke, dust, odors, heat or glare noticeable at or beyond the property line.

8. A home occupation, including studios or rooms for instruction, shall provide an additional off-street parking area adequate to accommodate needs created by the home occupation of not less than two (2) parking spaces plus the parking spaces required for the dwelling unit. Such parking shall be provided on the same lot as the home occupation.

9. For the purposes of this section, provided all requirements contained herein are met, the following shall be considered home occupations:

    a. Professional and service offices;

    b. Art and photo studio;

    c. Dressmaking or millinery;

    d. Teaching, with musical instruction limited to two (2) pupils at a time;

    e. The keeping of not more than two (2) roomers or boarders;

    f. Tea room;

    g. Barber shop;

    h. Beauty shop;

    i. Antique shop;

    j. Other uses in the opinion of the County Zoning Commission, which would not be detrimental.

ARTICLE 21.00
EXTENDED HOME OCCUPATIONS

Section 21.01. Extended Home Occupation.

There are significant differences between home occupations on small tracts and agricultural home occupations. The nature of resources available for use, the benefits and disadvantages created by home occupations, and the problems generated necessitate a distinction between urban home occupations and farm home occupations. Each concept is based on supplementing income, but the districts in which each is practiced has unique characteristics. For the aforesaid reasons, different home occupations may be permitted in agricultural zoning districts than are permitted in the urban residential districts.

1. For the purpose of this section, provided all requirements are met, the following shall be considered farm home occupations:

    a. Welding repair conducted in a safe manner;

    b. Veterinarian's office;

    c. Blacksmith;

    d. Service office;

    e. Others which, in the opinion of the County Zoning Commission would be in the same general character as those noted above.

2. Any home occupation shall be clearly supplementary to the principal use of the land and structures.

3. A home occupation may not be changed to another home occupation except by the issuance of a separate special use permit.

4. If any "A" District or part thereof is rezoned, the rezoned area shall meet the new district regulations and any home occupations shall be considered a non-conforming use until such requirements are met.

5. No sign shall be permitted larger than that allowed for a home occupation (See Article 20.01(4)).

ARTICLE 22.00
CONCENTRATED ANIMAL FEEDING OPERATION

Section 22.01. Concentrated Animal Feeding 0peration Regulations.

Intent

An adequate supply of healthy livestock, poultry and other animals is essential to the well being of county citizens and the State of South Dakota. However, livestock, poultry, and other animals produce manure, which may, where improperly stored, transported, or disposed, negatively affect the County's environment. Animal manure must be controlled where it may add to air, surface water, ground water, or land pollution. The following regulations have been adopted to provide protection against pollution caused by manure from domesticated animals. All new and proposed expansions of Concentrated Feeding Operations shall comply with the regulations as outlined herein.

It is the intention of the County Zoning Commission in the enforcement of this ordinance that when an operator of an existing Concentrated Animal Feeding Operation applies for a permit to expand to another class level, the standards that apply to the expansion will not be applied to existing structures that were built in compliance with accepted industry standards in existence at the time of the construction of such facilities.

Definitions

1. A 25-year, 24-hour Storm Event is the amount of rainfall in a 24-hour period expected to occur only once every 25 years. Typically, the 25-year, 24-hour storm event is about 5 inches in Brookings County. The map in Appendix A shows the actual amount of rainfall that constitutes the 25-year, 24-hour storm event for South Dakota.

2. Accessory Buildings and Uses is a subordinate use, which is incidental to that of the main building or to the main use of the premises. Buildings of 120 square feet or less are not required to have a building permit.

3. Anaerobic Lagoon means an impoundment used in conjunction with an animal feeding operation, if the primary function of the impoundment is to store and stabilize organic manure, the impoundment is designed to receive manure on a regular basis, and the impoundment's design manure loading rates provide that the predominant biological activity is anaerobic. An anaerobic lagoon does not include any of the following:

a. A confinement feeding operation structure.

b. A runoff control basin, which collects and stores only precipitation induced runoff from an open feedlot.

c. An anaerobic treatment system, which includes collection and treatment facilities for all gases.

4. Animal Feeding Operation Structure means an anaerobic lagoon, formed manure storage structure, egg washwater storage structure, earthen manure storage basin, or confinement building.

5. Animal Manure is poultry, livestock, or other animal excreta or mixture of excreta with feed, bedding or other materials.

6. Animal Unit See page 22.00-8.

7. Applicant is an individual, a corporation, a group of individuals, partnership, joint venture, owners, or any other business entity having charge or control of one or more concentrated animal feeding operations.

8. Aquifer is a geologic formation, group of formations or part of a formation capable of storing and yielding ground water to wells or springs.

9. Best Management Practices (BMP) means schedules of activities, prohibitions of practice, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMP's also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge, manure disposal, manure application, waste or manure stockpiles, or drainage from raw material storage.

10. Building is any structure in excess of 120 square feet designed for the support, shelter and protection of persons, animals, or property.

11. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

12. Change in Operation means a cumulative increase of more than 500 animal units, after May 13, 1997, which are confined at an un-permitted concentrated feeding operation.

13. A Chronic or Catastrophic Event is a single precipitation event, or a series of rainfall events in a short period of time that totals or exceeds the volume of a 25-year, 24-hour storm event. The event includes tornadoes, or other catastrophic conditions. The event would directly result in, or cause, an

overflow from the containment structure or lagoon that receives and contains runoff from an open lot.

14. Common Ownership is defined as single, corporate, cooperative or other joint operation or venture.

15. Concentrated Animal Feeding Operation see page 22.00-9.

16. Confinement Feeding Operation means a totally roofed animal feeding operation in which wastes are stored or removed as a liquid or semi-liquid.

17. Confinement Feeding Operation Structure means a formed manure storage structure, egg washwater storage structure, earthen manure storage basin, or confinement building. A confinement feeding operation structure does not include an anaerobic lagoon.

18. Corner lot is a lot with two front yards.

19. Domestic Animal is any animal that through long association with man, has been bred to a degree which has resulted in genetic changes affecting the temperament, color, conformation or other attributes of the species to an extent that makes it unique and different from wild individuals of its kind. For the purpose of this ordinance the definition shall include, but is not limited to, animals commonly raised on farms and ranches, such as cattle, horses, hogs, sheep and mules.

20. Earthen Manure Storage Basin means an earthen cavity, either covered or uncovered, which, on a regular basis, receives waste discharges from a confinement feeding operation if accumulated wastes from the basin are removed at least once each year.

21. Established Building Site means an established building site shall have been used in the past as a farmstead for a normal farming operation. Any residence established for more than ten (10) years shall become an established building site.

22. Established Residence is any residence established by a personal presence, in a fixed and permanent dwelling and an intention to remain there.

23. Farm Dwelling means any residence farmer owned or occupied by the farm owners, operators, tenants, or seasonal or year-around hired workers.

24. Feedlot Operator means an individual, a corporation, a group of individuals, partnership, joint venture, owners, or any other business entity having charge or control of one or more concentrated animal feeding operations.

25. Formed manure Storage Structure means a structure, either covered or uncovered, used to store manure from a confinement feeding operation, which has walls and a floor constructed of concrete, concrete block, wood, steel, or similar materials.

26. Housed Lot means totally roofed buildings that may be open or completely enclosed on the sides. Animals are housed over solid concrete or dirt floors, slotted floors over pits or manure collection areas in pens, stalls or cages. Housed lot is synonymous with other industry terms such as slotted floor buildings.

27. Letter of Assurances is a list of conditions signed by the applicant for a permit acknowledging agreement to follow the conditions of the permit.

28. Man-made means a pipeline, ditch, drain, tile, terrace, irrigation system, machine, or other object that carries manure, wastewater, or runoff into waters of the state.

29. Manure Management System means any piping, containment structures, and disposal appurtenances associated with the collection, storage, treatment, and disposal of manure or wastewater at an concentrated animal feeding operation.

30. Non-farm Dwelling means any occupied dwelling, which is not a farm dwelling.

31. No-till Cropland means land which is subject to a conservation farming practice: where the soil is left undisturbed from harvest to planting; where planting or drilling is done in a narrow seedbed or slot created by coulters, row cleaners, disk openers, or in-row chisel; and where this conservation practice has been ongoing for at least four consecutive years to establish the soil characteristics necessary to reduce or eliminate erosion from runoff.

32. Open Concentrated Animal Feeding Operation is an un-roofed or partially roofed animal feeding operation in which no crop, vegetation, forage growth or post-harvest residues are maintained during the period that animals are confined in the operation.

33. Open Lot means pens or similar confinement areas with dirt, or concrete (or paved or hard) surfaces. Animals are exposed to the outside environment except for possible small portions affording some protection by windbreaks or small shed type shade areas. Open lot is synonymous with other industry terms such as pasture lot, dirt lot or dry lot.

34. Permit is required by these regulations unless stated otherwise.

35. Potential Pollution Hazard A Concentrated Animal feeding Operation of 100 to 500 Animal Units may be classified as a Class D Operation by the County Zoning Officer when a Potential Pollution Hazard exists. Factors to be considered by the Zoning Officer in determining a Potential Pollution Hazard include the following:

    a. The Concentrated Animal Feeding Operation does not meet the minimum setback and separation distances of these regulations.

    b. A Potential Water Pollution Hazard exists due to sitting over a shallow aquifer or drainage that contributes to the waters of the State.

36. Process Generated Wastewater means water directly or indirectly used in the operation of an animal feeding operation. The term includes spillage or overflow from watering systems; water and manure collected while washing, cleaning or flushing pens, barns, manure pits or other areas; water and manure collected during direct contact swimming, washing or spray cooling of animals; and water used in dust control.

37. Process Wastewater means any process generated wastewater and any precipitation (rain or snow) that comes into contact with the animals, manure, litter or bedding, feed, or other portions of the animal feeding operation. The term includes runoff from an open lot.

38. Producer means the owner or operator of the concentrated livestock feeding operation.

39. Sediment Basin is a basin constructed to trap and store water-born sediment and debris.

40. Severe Property Damage means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources, which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

41. Shall means that the condition is an enforceable requirement of this permit.

42. Shallow Aquifer is an aquifer vulnerable to contamination because the permeable material making up the aquifer (a) extends to the land surface so percolation water can easily transport contaminants from land surface to the aquifer, or (b) extends to near the land surface and lacks a sufficiently thick layer of impermeable material on the land or near the land surface to limit

percolation water from transporting contaminants from the land surface to the aquifer.

43. Shallow Well is a well that is located in a shallow aquifer.

44. Should means that the condition is a recommendation. If violations of the permit occur, the County Zoning Commission will evaluate whether the producer implemented the recommendations contained in this permit that may have helped the producer to avoid the violation.

45. Significant Contributor of Pollution means to determine if a feedlot meets this definition, the following factors are considered:

    a. Size of feeding operation and amount of manure reaching waters of the state;

    b. Location of the feeding operation in relation to waters of the state;

    c. Means of conveyance of manure and process wastewater into waters of the state; and

    d. The slope, vegetation, rainfall and other factors affecting the likelihood or frequency of discharge of animal manure and process wastewater into waters of the state.

46. Solid Waste (reference SDCL 34A-6-1.3, 17.) any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded materials, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial and agricultural operations and from community activities, but does not include mining waste in connection with a mine permitted under Title 45, hazardous waste as defined under chapter 34A-11, solid or dissolved materials in domestic sewage or dissolved materials in irrigation return flows or industrial discharges with are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended to January 1, 1989, or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended to January 1, 1989.

47. Solid Waste Facility or solid waste disposal facility, (reference SDCL 34A-6-1.3, 18.) all facilities and appurtenances connected with such facilities, which are acquired, purchased, constructed, reconstructed, equipped, improved, extended, maintained or operated to facilitate the disposal or storage of solid waste.

48. Solid Waste Management System (reference SDCL 34A-6-1.3, 19.) is the entire process of storage, collection, transportation, processing and disposal of solid wastes by any person.

49. Conditional Use. A Conditional Use is a use that would not be appropriate generally or without restriction throughout the zoning division or district, but which, if controlled as to number, area, location, or relation to the neighborhood, would promote the public health, safety, welfare, morals, order, comfort, convenience, appearance, prosperity, or general welfare. Such uses may be permitted in such zoning division or district as Conditional Uses, as specific provisions for such exceptions is made in these zoning regulations. The County Zoning Commission may, after notice and hearing, revoke a Conditional Use in the event of a violation of any of such conditions. In addition, the Conditional Use permit may not be transferred during any violation.

50. Unauthorized Releases mean the discharge of water from the lower end of the treatment or containment system through a release structure or over or through retention dikes. An unauthorized release is distinguished from a bypass in that a bypass discharges wastewater prior to any treatment or containment.

51. Waters of the State means all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.

52. Zoning Complaints. All zoning complaints must be in writing and signed.

Animal Units

Animal species and number of a species required to equal 500, 1,000 and 2,000 animal units. Note that these figures relate to inventory rather than animal production. Other animal species equivalents, which are not listed, will be based on species' waste production.

EQUIVALENT NUMBER OF A SPECIES TO EQUAL:

ANIMAL SPECIES	500 AU	1,000 AU	2,000 AU	ANIMAL UNIT EQUIVALENT SPECIES/ AU
Feeder or Slaughter Cattle	500 hd	1,000 hd	2,000 hd	1.0
Mature Dairy Cattle	357 hd	714 hd	1,428 hd	1.4
Calves (up to 400 pounds)	1250 hd	2,500 hd	5,000 hd	0.4
Finisher Swine (over 55 lbs)	1250 hd	2,500 hd	5,000 hd	0.4
Nursery Swine (less than 55 lbs)	5,000 hd	10,000 hd	20,000 hd	0.1
Farrow to Finish*	135 hd	270 hd	540 hd	3.7
Sow and Litter	465 hd	1,076 hd	2,150 hd	0.93
Horses	250 hd	500 hd	1,000 hd	2.0
Sheep	5,000 hd	10,000 hd	20,000 hd	0.1
Turkeys	27,750 hd	55,550 hd	11,150 hd	0.018
Laying Hens and Broilers (continuous overflow watering in facility)	50,000 hd	100,000 hd	200,000 hd	0.01
Laying Hens and Broilers (liquid handling system in confinement facility)	15,150 hd	30,300 hd	60,600 hd	0.033
Ducks	2,500 hd	5,000 hd	10,000 hd	0.2

*Figures in the farrow to finish column include sows, pigs born and fed to market weight at one site, at one time.

Classes of Concentrated Animal Feeding Operations

A Concentrated Animal Feeding Operation is defined as a lot, yard, corral, building or other area where animals have been, are, or will be stabled or confined for a total of 45 days or more during any 12-month period, and where crops, vegetation, forage growth, or post harvest residues are not sustained over any portion of the lot or facility. Two or more animal feeding operations under common ownership are single animal operation if they adjoin each other within one mile, or if they use a common area, or if they use a common area or system for disposal of manure. In the event that a Confined Animal Feeding Operation includes facilities on and off Zone B and are under common ownership, the area not on Zone B may be allowed to expand without including the number of animal units on Zone B in determining what class permit is required.

For the purpose of these regulations, Concentrated Animal Feeding Operations are divided into the following classes:

	UNITS	
Class A	2,000 or more	
Class B	1,000 to 1,999	
Class C	500 to 999	
Class D	100 to 499	(Potential water pollution hazard)
Class E	0 to 499	(No pollution hazard)

Concentrated Feeding 0peration Permit Requirements

Owners of Class A, Class B, Class C, and Class D Concentrated Feeding Operations are required to complete a permit application whenever any of the following occur:

1. A new Concentrated Feeding Operation is proposed where one does not exist.

2. An expansion is proposed beyond what a current permit allows.

3. Accumulative expansion by 500 animal units, after May 13, 1997 if an existing concentrated animal feeding operation that does not have a permit or if expansion takes the animal units into another class.

4. Any complaint against a Concentrated Animal Feeding Operation must be in writing and signed. Names of complainants will be kept confidential. A signed complaint has been received by the Zoning Officer or South Dakota Department of Environment and Natural Resources and after inspection

reveals that the Concentrated Feeding Operation is in violation of County or State regulations.

5. An existing concentrated animal feeding operation is to be restocked after being idle for five (5) or more years.

Concentrated Animal Feeding Operation Control Requirements

1. No Significant Contribution of Pollution.

   In general, no Concentrated Animal Feeding Operation shall be constructed, located, or operated so as to create a significant contribution of pollution.

2. State General Permit

   Classes A and B Concentrated Animal Feeding Operations shall obtain coverage under a State General Permit pertaining to the animal species of the Concentrated Animal Feeding Operation. A county permit may be approved conditioned on receiving State approved plans.

   Classes C and D Concentrated Animal Feeding Operations will be required to obtain a State General Permit if the following occur:

   a. If an earthen storage basin or lagoon is used for manure storage.

   b. The County Zoning Commission decides conditions require a state permit.

3. Nutrient Management Plan.

   The applicant shall develop, maintain, and follow a nutrient management plan to ensure safe disposal of manure and protection of surface and ground water. The nutrient management plan must be either approved by the Brookings County Zoning Officer or by the South Dakota Department of Environment & Natural Resources if a State General Permit is required prior to land application of any manure. Due to crop rotation, site changes, and other operational changes, the applicant should update the plan annually to reflect the current operation and crops grown on the application sites. The applicant should collect, store, and dispose of manure according to recognized practices of good agricultural management. The economic benefits derived from agricultural operations carried out at the land disposal site are secondary to the proper and safe disposal of the manure. If a violation of the nutrient management plan occurs the violator will be required to update the nutrient management plan annually and the collection, storage and disposal of liquid and solid manure will be done according to recognized practices of good agricultural management.

A generic nutrient management plan that the applicant may use in developing a nutrient management plan is available from the South Dakota Department of Environment & Natural Resources and NRCS. The generic nutrient management plan is based on application of nitrogen. The applicant may use other plans, provided the alternate plan contains all the information necessary to determine compliance with conditions of this general permit or Brookings County requirements. Nitrogen, in addition to that allowed in the nutrient management plan, may be applied up to the amounts as indicated by soil or crop nitrogen test results that are necessary to obtain the realistic crop yield. The South Dakota Department of Environment & Natural Resources and Brookings County encourage producers to develop a nutrient management plan for phosphorous. Over application of phosphorous may lead to water quality problems in area lakes and streams.

The applicant must have the manure analyzed, soil tests taken on land where manure is to be applied and take the results to the Cooperative Extension Service and/or an agronomist for recommendations for the correct amount to apply per acre. This must be done the first year and every year thereafter. Phosphorus should be sampled every 3-5 years.

The applicant must maintain records to show compliance with the plan.

Land spreading agreements shall be provided if applicant does not have minimum acreage to apply animal waste.

4. Manure Management and Operation Plan

Classes A, B, C, and D Concentrated Animal Feeding Operations must submit a Manure Management and Operation Plan.

A. Plan must include:

1. The location and specifics of proposed animal manure facilities.

2. The operation procedures and maintenance of manure facilities.

3. Plans and specifications must be prepared or approved by a registered professional engineer, or a Natural Resource Conservation Service (NRCS) engineer. Waste containment facilities will require inspection by an engineer or NRCS technician and as-built plans be submitted to the Brookings County Zoning Officer.

4. Animal manure shall not be stored longer than two years.

5. Manure containment structures shall provide for a minimum design volume of 270 days of storage. In addition open outdoor storage shall include storage for direct precipitation and/or runoff from a 25 year, 24 hour storm.

6. Applicants shall keep records of manure applications on individual fields, which document acceptable manure, and nutrient management practices have been followed. These records shall include soils test results for surface two feet of soil, actual and projected crop yields, nutrient analysis of manure, and information about date, rate and method of manure applications for individual fields. The producer shall retain records of all monitoring information, maintenance and inspection records, copies of reports required by this permit. The producer shall keep the records for at least three years from the date of the sample, measurement, report, or application. Data collected and a copy of this permit must be kept at the confined animal feeding operation or the usual place of business where employees of the operation have access to them. These shall be made available for review by the Brookings County Zoning Board or its representative upon a written request. (Ord. 2006-02, 3-28-2006).

B. The applicant must participate in environmental training programs and become a certified livestock manager if available.

C. The applicant is responsible for the misapplication of the manure whether applied on the applicants own land or on land where there is a land spreading agreement or in transport. The complaint procedure will be the same as for any other zoning complaint.

D. The County Zoning Commission may require manure to be injected or incorporated in order to minimize air and water quality impacts.

E. Requests for application of liquid manure by means of irrigation systems will be reviewed by the County Zoning Commission on a site-specific basis. Impact on air and water quality will be taken into consideration.

F. All irrigation systems blending manure with ground water must have check valves installed to prevent back flow into the water supply.

G. The County Zoning Commission may, after notice and hearing, revoke a Conditional Use in the event of a violation of any of such conditions. In addition, the Conditional Use permit may not be transferred during any violation.

5. Management Plan for Fly and Odor Control

   Classes A, B, C, D and E Concentrated Animal Feeding Operations shall dispose of dead animals, waste and wastewater in such a manner as to control odors and flies. A management plan is required for submission of a permit. Brookings County Zoning Commission will review the need for control measures on a site specific basis, taking into consideration prevailing wind direction and topography. The following procedures to control flies and odors shall be considered in a management control plan.

   A. Operational plans for manure collection, storage treatment and use must be kept updated and implemented.

   B. Methods to be utilized to dispose of dead animals shall be included in the management plan.

   The following procedures to control flies and odors should be considered in a management control plan.

   A. Plant trees and shrubs to reduce wind movement of odors away from buildings, manure storage ponds and/or lagoons.

   B. Provide adequate slope and drainage to remove surface water from pens and keep pen area dry so odor production is minimized.

   C. Store solid manure in containment areas having good drainage to minimize odor production.

   D. Consider use of BMP's on open storage systems for liquid manure systems to control odor production.

6. Required Setbacks and Separation Distance for New Concentrated Feeding Operations and those Expanding by 500 or More Animal Units after May 13, 1997.

MINIMUMS (Ord. 2006-03, 9-26-2006)

	CLASS A	CLASS B	CLASS C	CLASS D & E
Established residences	2,640 feet	1,760 feet	1,320 feet	1,320 feet
Adjoining property lines	200 feet	200 feet	200 feet	200 feet
Churches, Businesses and Commercially Zoned Areas	2,640 feet	2,640 feet	1,320 feet	1,320 feet
Municipal Areas and Incorporated Municipal boundary limits	5,280 feet	5,280 feet	2,640 feet	1,320 feet
Lake Park District boundary limits	5,280 feet	5,280 feet	2,640 feet	1,320 feet
Private Wells other than the operator	2,640 feet	1,760 feet	1,320 feet	1,320 feet
Lakes and Streams classified as Fisheries as identified by the state	500 feet	500 feet	200 feet	200 feet
Federal, State & County Road ROW Confinement	300 feet	300 feet	200 feet	200 feet
Federal, State & County Road ROW Open lot	50 feet	50 feet	50 feet	50 feet
Township Road ROW Confinement	150 feet	150 feet	150 feet	150 feet
Township Road ROW Open lot	50 feet	50 feet	50 feet	50 feet

The County Zoning Commission shall have the power where exceptional topographic conditions or other extraordinary and exceptional situations or conditions exist to require setbacks in excess of the above minimum for proposals for new concentrated animal feeding operations. (Ord. 2006-02, 3-28-2006)

Permitted uses in Zone A, Provided They Meet Appropriate Performance Standards Outlined For Aquifer Protection Overlay Zones:

1. Agriculture;

a. Application of manure is permitted with an approved nutrient management plan.

2. Horticulture;

3. Park, greenways or publicly owned recreational areas;

4. Necessary public utilities/facilities designed so as to prevent contamination of ground water.

Conditional Uses in Zone A:

The following uses are permitted only under the terms of a Conditional Use and must conform to provisions of the underlying zoning district and meet the Performance Standards outlined for the Aquifer Protection Overlay Zones.

1. Expansion of existing conforming and non-conforming uses to the extent allowed by the underlying district. The County Zoning Commission shall not grant approval unless it finds such expansion does not pose greater potential contamination to ground water than the existing use.

2. Sediment basins will be allowed on a case by case basis and must be constructed to current NRCS standards and specifications.

Prohibited Uses in Zone A:

The following uses are expressly prohibited in Zone A:

1. New Concentrated Animal Feeding Operations after adoption of this ordinance.

2. Existing Concentrated Animal Feeding Operations will not be able to expand beyond a total of 500 animal units (Class D).

3. Earthen storage basins and lagoons.

4. Disposal of or stockpiling of solid waste.

5. Post harvest application of nitrogen fertilizer prior to October 15th except for the spreading of manure.

6. Storage of road salt or disposal of snow containing deicing chemicals.

7. Processing and storage of PCB containing oils;

8. Car washes;

9. Auto service, repair or painting facilities and junk or salvage yards;

10. Disposal of radioactive waste;

11. Graveyards or animal burial sites;

12. Open burning and detonation sites;

13. All other facilities involving the collection, handling, manufacture, use storage, transfer or disposal of any solid or liquid material or waste having a potentially harmful impact on ground water quality;

14. Land spreading or dumping of petroleum contaminated soil, waste oil or industrial wastes.

15. Class V injection wells.

16. All uses permitted or not permitted as Conditional Uses in Zone A.

Zone B -- Aquifer Secondary Impact Zones

Zone B is established as the remainder of the mapped shallow/surficial aquifer not included in Zone A.

This portion of the aquifer is being protected because (1) it is a valuable natural resource for future development, (2) it provides drinking water supply for individual households, (3) contamination is not justified, even though this area is not a public water supply wellhead and (4) contaminants could eventually reach Zone A.

Permitted Uses in Zone B:

1. All uses permitted in the underlying zoning districts provided that they can meet the Performance standards as outlined for the Aquifer Protection Overlay Zones.

Conditional Uses in Zone B:

1. New Class D and expansion of existing Class D up to 999 animal units (Class C).

2. Sediment basins will be allowed on a case by case basis and must be constructed to current NRCS standards and specifications.

3. All Conditional Uses allowed in underlying districts may be approved by the County Zoning Commission provided they can meet Performance Standards outlined for the Aquifer Protection Overlay Zones.

Prohibited Use in Zone B:

The following use is expressly prohibited in Zone B:

1. New and expansion of Class A, B and C Concentrated Animal Feeding Operations.

2. Earthen storage basins and lagoons.

3. Post harvest application of nitrogen fertilizer prior to October 15th except for the spreading of manure.

4. Land spreading or dumping of petroleum contaminated soil, waste oil or industrial wastes.

5. Class V injection wells.

Each application for a new or expanded concentrated animal feeding operation (CAFO) will be reviewed by the County Zoning Commission on a site specific basis. The County Zoning Commission reserves the right to increase the minimum required setbacks and separation distance on a site specific review, based on one or more of the following considerations.

A. A concentration of CAFO's in the area exists or would occur which may pose an air or water quality concern.

B. Due to topography and prevailing wind direction, additional setback and separation distance is appropriate to safeguard air or water quality.

C. A concentrated animal feeding operation is in excess of 5,000 animal units.

7. Standards for Conditional Uses

A. The County Zoning Commission may request information relating to a Concentrated Animal Feeding Operation not contained in these regulations.

B. The County Zoning Commission may impose, in addition to the standards and requirements set forth in these regulations, additional conditions which the County Zoning Commission considers necessary to protect the public health, safety and welfare.

C. Conditional Uses shall be in effect only as long as sufficient land specified for spreading purposes is available for such purposes and other provisions of the permit are being adhered to.

D. When considering an application, the County Zoning Commission will take into consideration current and past violations relating to Concentrated Animal Feeding Operations that the applicant has an interest in.

E. The permit holder shall provide and at all times maintain General Liability insurance in the amount of at least $1,000,000.00, with an Environmental Protection Insurance rider of at least $100,000.00. Proof of such insurance must be received prior to the issuance of a permit and must be provided annually during the operation of such CAFO. The insurance carrier shall be required to provide Brookings County with notice of insurance and with a notice of cancellation or change in coverage. Failure to maintain such insurance shall be grounds for cancellation of the Conditional Use Permit. (Ord. 2006-02, 3-28-2006).

F. Permit applicants will be required to file a letter of assurances as required by the County Zoning Commission. The letter of assurances will be prepared by the zoning officer and signed by both the applicant and the zoning officer.

G. In the event of a discharge (as defined by SDCL 34A-2B-1) of manure or other materials or wastes associated with a CAFO, the permit holder shall cooperate fully with and comply with all requirements of the South Dakota Department of Environment and Natural Resources and such permit holder shall take all steps necessary to clean up and eliminate such discharge at the sole expense of the permit holder and/or its insurance carrier. Failure to comply with the requirements of this paragraph shall be grounds for cancellation of the Conditional Use Permit. (Ord. 2006-02, 3-28-2006).

H. The permit holder shall at all times properly dispose of dead livestock consistent with the rules, regulations and directives of the South Dakota Animal Industry Board of the Department of Agriculture. Failure to comply with such rules, regulations or directives shall be grounds for cancellation of the Conditional Use Permit. (Ord. 2006-02, 3-28-2006).

I. The permit holder shall notify Brookings County in writing in the event of closure of the animal confinement operation. Included in the notification shall be: plans for cleaning the buildings, waste system and emptying of the holding pond, storage pit or lagoon. (Ord. 2006-02, 3-28-2006).

8. Information Required for Class A and B Concentrated Feeding Operation Permit.

   A. Owner's name, address and telephone number.

   B. Legal descriptions of site and site plan.

   C. Number and type of animals.

   D. Nutrient management plan.

   E. Manure management and operation plan.

   F. Management Plan for Fly and Odor Control.

   G. Information on ability to meet designated setback requirements including site plan to scale.

   H. General permits from South Dakota Department of Environment & Natural Resources if available for animal species.

   I. Review of Plans and Specifications and Nutrient Management Plan by the South Dakota Department of Environment & Natural Resources.

   J. Information on soils, shallow aquifers, designated wellhead protection areas, and 100-year flood plain designation.

   K. Notification of whoever maintains the access road (township, county and state). Notification of public water supply officials

   L. Any other information as contained in the application and requested by the County Zoning Officer.

9. Information Required for Class C and D Concentrated Feeding Operation Permit.

   A. Owner's name, address and telephone number.

   B. Legal descriptions of site and site plan.

C. Number and type of animals.

D. Nutrient management plan.

E. Manure management and operation plan.

F. Management Plan for Fly and Odor Control.

G. Information on ability to meet designated setback requirements including site plan to scale.

H. Review of Plans and Specifications and Nutrient Management Plan by the South Dakota Department of Environment & Natural Resources if using lagoon or earthen storage basin.

I. Information on soils, shallow aquifers, designated wellhead protection areas, and 100-year floodplain designation.

J. Notification of whoever maintains the access road (township, county and state). Notification of public water supply officials

K. Any other information as contained in the application and requested by the County Zoning Officer.

ARTICLE 23.00
WIND ENERGY SYSTEM (WES) REQUIREMENTS

Section 23.01. Wind Energy System (WES) Requirements (Ord. 2001-03, 10-02-2001)

A. Applicability

The requirements of these regulations shall apply to all WES facilities except private facilities with a single tower height of less than seventy-five (75) feet and used primarily for on-site consumption of power.

B. Federal and State Requirements

All WES shall meet or exceed standards and regulations of the Federal Aviation Administration and South Dakota State Statutes and any other agency of federal or state government with the authority to regulate WES.

C. Definitions

Construction. "Construction" means any clearing of land, excavation, or other action that would adversely affect the natural environment of the site or route but does not include changes needed for temporary use of sites or routes for non- utility purposes, or uses in securing survey or geological data, including necessary borings to ascertain foundation conditions.

High voltage transmission line. "High voltage transmission line" means a conductor of electric energy and associated facilities.

Large electric power facilities. "Large electric power facilities" means high voltage transmission lines.

Person. "Person" shall mean an individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

Route. "Route" means the location of a high voltage transmission line between two end points. The route may have a variable width of up to 1.25 miles.

Utility. "Utility" shall mean any entity engaged in this state in the generation, transmission or distribution of electric energy including, but not limited to, a private investor owned utility, cooperatively owned utility, and a public or municipally utility.

D. GENERAL PROVISIONS

1. Mitigation Measures

a. Site Clearance. The permittees shall disturb or clear the site only to the extent necessary to assure suitable access for construction, safe operation and maintenance of the WES.

b. Topsoil Protection. The permittees shall implement measures to protect and segregate topsoil from subsoil in cultivated lands unless otherwise negotiated with the affected landowner.

c. Compaction. The permittees shall implement measures to minimize compaction of all lands during all phases of the project's life and shall confine compaction to as small an area as practicable.

d. Livestock Protection. The permittees shall take precautions to protect livestock during all phases of the project's life.

e. Fences. The permittees shall promptly replace or repair all fences and gates removed or damaged during all phases of the project's life unless otherwise negotiated with the affected landowner.

f. Roads

(1) Public Roads. Prior to commencement of construction, the permittees shall identify all state, county or township "haul roads" that will be used for the WES project and shall notify the state, county or township governing body having jurisdiction over the roads to determine if the haul roads identified are acceptable. The governmental body shall be given adequate time to inspect the haul roads prior to use of these haul roads. Where practical, existing roadways shall be used for all activities associated with the WES. Where practical, all-weather roads shall be used to deliver concrete,

turbines, towers, assemble nacelles and all other heavy components to and from the turbine sites.

The permittees shall, prior to the use of approved haul roads, make satisfactory arrangements with the appropriate state, county or township governmental body having jurisdiction over approved haul roads for construction of the WES for the maintenance and repair of the haul roads that will be subject to extra wear and tear due to transportation of equipment and WES components. The permittees shall notify the County Zoning Office of such arrangements.

(2) Turbine Access Roads. Construction of turbine access roads shall be minimized. Access roads shall be low profile roads so that farming equipment can cross them and shall be covered with Class 5 gravel or similar material. When access roads are constructed across streams and drainage ways, the access roads shall be designed in a manner so runoff from the upper portions of the watershed can readily flow to the lower portion of the watershed.

(3) Private Roads. The permittees shall promptly repair private roads or lanes damaged when moving equipment or when obtaining access to the site, unless otherwise negotiated with the affected landowner.

(4) Control of Dust. The permittees shall utilize all reasonable measures and practices of construction to control dust.

g. Soil Erosion and Sediment Control Plan. The permittees shall develop a Soil Erosion and Sediment Control Plan prior to construction and submit the plan to the County Zoning Office. The Soil Erosion and Sediment Control Plan shall address the erosion control measures for each project phase, and shall at a minimum identify plans for grading, construction and drainage of roads and turbine pads; necessary soil information; detailed design features to maintain downstream water quality; a comprehensive revegetation plan to maintain and ensure adequate erosion control and slope stability and to restore the site after temporary project activities; and measures to minimize the area of surface disturbance. Other practices shall include containing excavated material, protecting exposed soil,

stabilizing restored material and removal of silt fences or barriers when the area is stabilized. The plan shall identify methods for disposal or storage of excavated material.

2. Setbacks

   Wind turbines shall meet the following minimum spacing requirements.

   a. Distance from existing off-site residences, business and public buildings shall be one thousand (1,000) feet. Distance from on-site or lessor's residence shall be one thousand (1,000) feet. (Ord. 2005-01, 1-25-2005)

   b. Distance from right-of-way (ROW) of public roads shall be 500 feet or one point one (1.1) times the height of the wind turbines depending upon which is greater, measured from the ground surface to the tip of the blade when in a fully vertical position. (Ord. 2005-01, 1-25-2005)

   c. Distance from any property line shall be 500 feet or one point one (1.1) times the height of the wind turbines depending upon which is greater, measured from the ground surface to the tip of the blade when in a fully vertical position unless wind easement has been obtained from adjoining property owner. (Ord. 2005-01, 1-25-2005)

3. Electromagnetic Interference. The permittees shall not operate the WES so as to cause microwave, television, radio, or navigation interference contrary to Federal Communications Commission (FCC) regulations or other law. In the event such interference is caused by the WES or its operation, the permittees shall take the measures necessary to correct the problem.

4. Lighting. Towers shall be marked as required by the Federal Aviation Administration (FAA). There shall be no lights on the towers other than what is required by the FAA. This restriction shall not apply to infrared heating devices used to protect the monitoring equipment.

5. Turbine Spacing. The turbines shall be spaced no closer than three (3) rotor diameters (RD) measurement of blades tip to tip. If required during final micro siting of the turbines to account for topographic conditions, up to 10 percent of the towers may be sited closer than the above spacing but the permittees shall minimize the need to site the turbines closer.

6. Footprint Minimization. The permittees shall design and construct the WES so as to minimize the amount of land that is impacted by the WES. Associated facilities in the vicinity of turbines such as electrical/electronic boxes, transformers and monitoring systems shall to the greatest extent feasible be mounted on the foundations used for turbine towers or inside the towers unless otherwise negotiated with the affected landowner.

7. Electrical Cables. The permittees shall place electrical lines, known as collectors, and communication cables underground when located on private property. Collectors and cables shall also be placed within or immediately adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner. This paragraph does not apply to feeder lines.

8. Feeder Lines. The permittees shall place overhead electric lines, known as feeders, on public rights-of-way if a public right-of-way exists. Changes in routes may be made as long as feeders remain on pubic rights-of-way and approval has been obtained from the governmental unit responsible for the affected right-of-way. If no public right-of-way exists, the permittees may place feeders on private property. When placing feeders on private property, the permittees shall place the feeder in accordance with the easement negotiated with the affected landowner. The permittees shall submit the site plan and engineering drawings for the feeder lines before commencing construction.

9. Decommissioning/Restoration/Abandonment

   a. Decommissioning Plan. Within 120 days of completion of construction, the permittees shall submit to the County Zoning Office a decommissioning plan describing the manner in which the permittees anticipate decommissioning the project in accordance with the requirements of paragraph (b) below. The plan shall include a description of the manner in which the permittees will ensure that it has the financial capability to carry out these restoration requirements when they go into effect. The permittees shall ensure that it carries out its obligation to provide for the resources necessary to fulfill these requirements. The County Zoning Office may at any time request the permittees to file a report with the County Zoning Office describing how the permittees are fulfilling this obligation.

b. Site Restoration. Upon expiration of this permit, or upon earlier termination of operation of the WES, the permittees shall have the obligation to dismantle and remove from the site all towers, turbine generators, transformers, overhead and underground cables, foundations, buildings and ancillary equipment to a depth of four feet. To the extent possible the permittees shall restore and reclaim the site to its pre-project topography and topsoil quality. All access roads shall be removed unless written approval is given by the affected landowner requesting that one or more roads, or portions thereof, be retained. Any agreement for removal to a lesser depth or for no removal shall be recorded with the County Zoning Office and shall show the locations of all such foundations. All such agreements between the permittees and the affected landowner shall be submitted to the County Zoning Office prior to completion of restoration activities. The site shall be restored in accordance with the requirements of this condition within eighteen months after expiration.

c. Abandoned Turbines. The permittees shall advise the County Zoning Office of any turbines that are abandoned prior to termination of operation of the WES. The County Zoning Office may require the permittees to decommission any abandoned turbine.

10. Height from Ground Surface. The minimum height of blade tips, measured from ground surface when a blade is in fully vertical position, shall be twenty-five (25) feet.

11. Towers.

    a. Color and Finish. The finish of the exterior surface shall be non-reflective and non-glass.

    b. All towers shall be singular tubular design.

12. Noise. Noise level shall not exceed 50 dBA, including constructive interference effects at existing off-site residences, businesses, and public buildings. (Ord. 2006-02, 3-28-2006).

13. Permit Expiration. The permit shall become void if no substantial construction has been completed within three (3) years of issuance.

14. Required Information for Permit.

    a. Boundaries of the site proposed for WES and associated facilities on United States Geological Survey Map or other map as appropriate.

    b. Map of easements for WES.

    c. Map of occupied residential structures, businesses and public buildings.

    d. Map of sites for WES, access roads and utility lines.

    e. Location of other WES in general area.

    f. Project schedule.

    g. Mitigation measures.

ARTICLE 24.00
TRANSMISSION PIPELINE RISK REDUCTION OVERLAY DISTRICT

Section 24.01: Land Use in Transmission Pipeline Overlay District (Ord. 2009-01, 11-17-2009.

Purpose

The Brookings County Planning Commission and Board of County Commissioners recognize: (1) that oil and gas transmission pipelines are federally regulated, including 49 Code of Federal Regulations (CFR) 190 through 195, and that oil and gas transmission pipelines and pipelines which transport gas from methane digesters are state regulated, through South Dakota Codified Laws (SDCL) Chapter 49-34B and SDCL Chapter 49-41B and (2) that Brookings County can implement safety measures to protect citizens and sensitive environmental areas within the borders of Brookings County through SDCL Chapter 7-8-20.

The Brookings County Planning Commission and Board of County Commissioners recognize: (1) that third-party damage and pipeline right-of-way encroachment are significant threats to pipeline safety; (2) that transmission pipelines may pose a risk to public safety and/or the environment if ruptured or damaged; and (3) that certain land use practices can reduce the likelihood of accidental damage to gas and hazardous liquid pipelines and reduce adverse impacts of pipeline failures located within Brookings County.

The purpose of the Transmission Pipeline Risk Reduction Overlay District is to protect public health and safety by reducing the likelihood of pipeline damage and reducing the adverse impact of pipeline failures through risk-based land management decisions. It is the intent to accomplish this, as much as possible, by public education, early consultation among stakeholders and securing public cooperation.

The Transmission Pipeline Risk Reduction Overlay District will be incorporated into Brookings County Geographic Information Systems mapping and used primarily when issuing Zoning and Building permits to facilitate discussions among developers, landowners, and pipeline operators.

The Transmission Pipeline Risk Reduction Overlay District will enhance and not preclude the requirements of the South Dakota One Call System.

The Transmission Pipeline Risk Reduction Overlay District and the provisions of this article will be applied to federally and state regulated hazardous liquid and

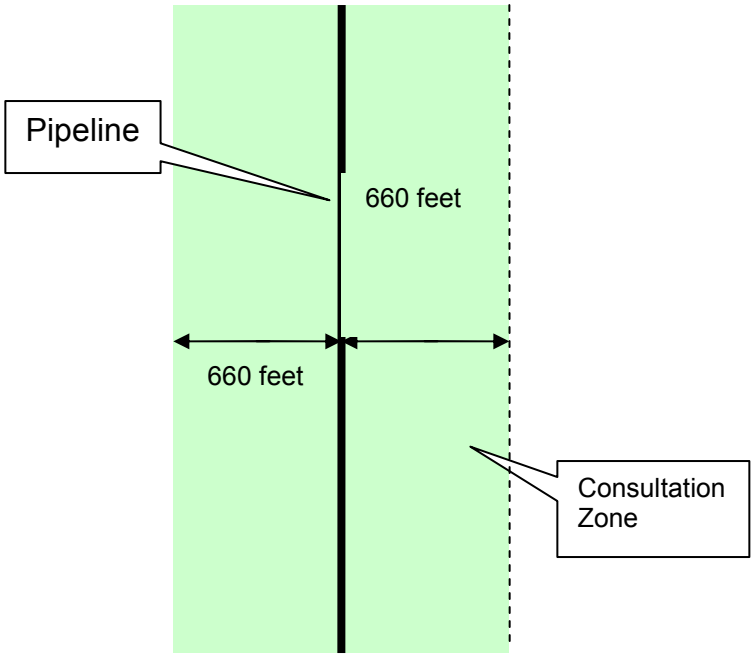
gas transmission pipelines, and pipelines which transport gas from methane digesters but will exclude gas gathering or distribution pipelines.

Brookings County reserves the right to implement the Transmission Pipeline Risk Reduction Overlay District on new direct service pipelines constructed for non-agricultural and non-residential facilities such gas power plants and commercial methane digesters .

Appropriate land use regulations will be imposed, however, which are in addition to those imposed in the underlying zoning districts or in other county regulations.

Definitions

1. Consultation Zone: An area extending 660' from each side of a transmission pipeline, which defines when a property developer/owner, who is planning new development in the vicinity of an existing transmission pipeline, should initiate a dialogue with a transmission pipeline operator.



2. Development: The carrying out of any construction, reconstruction, alteration of surface or structure or change of land use or intensity of use.

3. Development Permit: for the purposes of the Consultation Zone requirements, means any permit for development activity that involves construction, grade modification, excavation, blasting, land clearing, or the deposit of earth, rocks or other materials that places an additional load upon the

soil. Construction that involves work totally within an existing building footprint and does not involve excavation, such as residential remodeling projects, is specifically exempted from these Consultation Zone requirements.

4. Distribution Pipeline: A gas pipeline other than a gathering or transmission line (reference 49 CFR 192.3). A distribution line is generally used to supply natural gas to the consumer and is found in a network of piping located downstream of a natural gas transmission pipeline.

5. Easement: (1) A legal instrument giving a transmission pipeline operator a temporary or permanent right to use a right-of-way for the construction, operation, and maintenance of a pipeline. It may also include temporary permits, licenses, and other agreements allowing the use of one's property. (2) An easement is an acquired privilege or right, such as a right-of-way, afforded a person or company to make limited use of another person or company's real property. For example, the municipal water company may have an easement across your property for the purpose of installing and maintaining a water line. Similarly, oil and natural gas pipeline companies acquire easements from property owners to establish rights-of-way for construction, maintenance and operation of their pipelines. (3) A legal right, acquired from a property owner, to use a strip of land for installation, operation and maintenance of a transmission pipeline.

6. Encroachment: (1) A human activity, structure, facility, or other physical improvement that intrudes onto a transmission pipeline right-of-way. (2) Encroachment refers to the unauthorized use of a right-of-way in violation of the easement terms.

7. Excavation: Any operation in which earth, rock or other material [in or on the ground] [within 12" of grade level] is moved, removed or otherwise displaced by means of any tools, equipment or explosives and includes, without limitation, backfilling, grading, trenching, digging, ditching, drilling, pulverizing, rubblizing, well-drilling, augering, boring, tunneling, scraping, cable or pipe plowing, plowing-in, pulling-in, ripping, driving, and demolition of structures, except that, the use of mechanized tools and equipment to break and remove pavement and masonry down only to the depth of such pavement or masonry, the use of high-velocity air to disintegrate and suction to remove earth, rock and other materials, and the tilling of soil for agricultural or seeding purposes shall not be deemed excavation. Backfilling or moving earth on the ground in connection with other excavation operations at the same site shall not be deemed separate instances of excavation.

8. Gas Transmission Pipeline: means a "transmission line" as defined by Title 49, Code of Federal Regulations, Section 192.3. A pipeline, other than a

gathering line, that: (1) transports gas from a gathering line or storage facility to a distribution center, storage facility, or large-volume customer that is not downstream from a distribution center; (2) operates at a hoop stress of 20 percent or more of specified minimum yield strength; or, (3) transports gas within a storage field. (Reference 49 CFR 192.3) A gas transmission pipeline includes all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.

9. Hazardous Liquid: Petroleum, petroleum products, or anhydrous ammonia and carbon dioxide (49 CFR 195.2); or liquid natural gas (LNG) or a liquid that is flammable or toxic (49 CFR 193.2007).

10. Hazardous Liquid Pipeline: means a pipeline designed for the transmission of a “hazardous liquid”, as defined by Title 49, Code of Federal Regulations, Section 195.2. All parts of a pipeline facility through which a hazardous liquids move in transportation, including, but not limited to, line pipe, valves, and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein, and breakout tanks.

12. Maximum Allowable Operating Pressure (MAOP): means the maximum pressure at which a pipeline or segment of a gas transmission pipeline may be operated under Title 49, Code of Federal Regulations, Part 192.

13. Maximum Operating Pressure (MOP) means the maximum pressure at which a hazardous liquid pipeline or segment of a pipeline may be normally operated under 49 CFR Part 195.

14. Nonconforming Use or Structure: A use or structure that is impermissible under current zoning restrictions but that is allowed because the use or structure existed lawfully before the restrictions took effect.

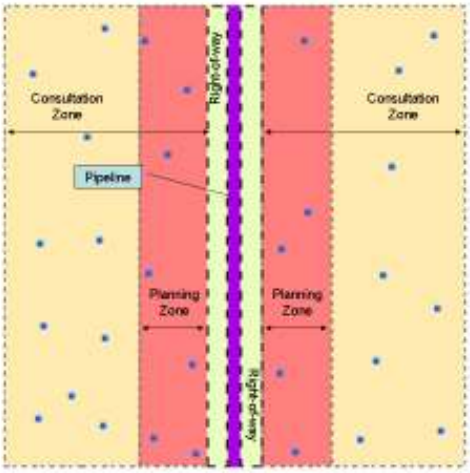
15. Person: Any individual, firm, joint venture, legal entity, partnership, corporation, association or cooperative, public or private.

16. PIPA Report: A document scheduled to be available in early 2010 through the U. S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) that provides recommended practices for land use and planning in the vicinity of transmission pipelines. The document is intended to be available on the PHMSA Pipeline Safety Stakeholder Communications web site. (http://primis.phmsa.dot.gov/comm/LandUsePlanning.htm)

17. Pipeline: means the same as is defined by Title 49, Code of Federal Regulations, Sections 195.2 and 192.3.

18. Pipeline Facility: means all parts of those physical facilities through which gas, hazardous liquids or carbon dioxide are moved in transportation as defined by 49 CFR Parts 192, 193 and 195.

19. Planning Zone: means an area around a transmission pipeline, based on characteristics of the pipeline and the surrounding area. The Planning Zone is a corridor in which risk-based land management decisions may have potential benefits in protecting pipelines, mitigating the immediate consequences of a pipeline incident, and facilitating emergency response to a potential transmission pipeline incident.



20. Potential impact radius (PIR) is defined as the radius of a circle within which the worst case failure of a gas transmission pipeline could have significant instantaneous impact on people or property not protected by structures or other obstructions. The PIR is calculated by the formula:

r = 0.69* (square root of (p*d ^{2}))

‘r’ is the radius of a circular area in feet surrounding the point on the pipeline of a potential failure

‘p’ is the pipeline’s maximum allowable operating pressure (MAOP) in the pipeline segment in pounds per square inch

‘d’ is the nominal diameter of the pipeline in inches

The 0.69 factor is appropriate for natural gas pipelines. Different factors apply for other gases, depending upon their heat of combustion (see ASME B31.8-2004, Managing System Integrity of Gas Pipelines, 2005). Continued on page 24.00-6.

Continued from page 24.00-5.

Pipeline MAOP (psig)	Pipeline Diameter (inches) 6	8	10	12	16	24	30	36	42
	Planning Zone (PIR in feet)								
200	59	78	98	117	156	234	293	351	410
400	83	110	138	166	221	331	414	497	580
600	101	135	169	203	270	406	507	608	710
800	117	156	195	234	312	468	585	703	820
1000	131	175	218	262	349	524	655	786	916
1200	143	191	239	287	382	574	717	860	1004
1400	155	207	258	310	413	620	775	929	1084

This table gives Planning Zone distances (in feet) for natural gas transmission lines, based on the PIR calculation for different combinations of pipeline diameters and MAOP. For example, a 30-inch pipeline with MAOP of 1,000 psig has a PIR of 655 feet. In this case, a Planning Zone extending 655 feet on either side of the pipeline could be defined.

21. Right-of-way (ROW): (1) A piece of property, usually consisting of a narrow, unobstructed strip or corridor of land of a specific width, which a pipeline company and the fee simple landowner both have legal rights to use and occupy. (2) A defined strip of land on which an operator has the right to construct, operate and maintain a pipeline. The operator may own a right-of-way outright or an easement may be acquired for specific use of the right-of-way.

22. Right-of-way agreement: See "*Easement*"

23. Rural: An area outside the limits of any incorporated or unincorporated city, town, village, or any other designated residential or commercial area such as a subdivision, a business or shopping center, or community development. (Reference 49 CFR 195.2)

24. South Dakota One Call: The South Dakota One Call system provides for communication between excavators and underground facility operators so buried utilities can be marked in advance of any digging. Following the One Call procedure works to reduce damages to underground infrastructure, helps to ensure public and worker safety, and protects the integrity of utility services. South Dakota Codified Law (SDCL) Chapter 49-7A authorizes the use of South Dakota One Call in South Dakota.

25. Transmission Pipeline: A pipeline, other than a gathering line, that transports gas or hazardous liquids from producing areas to refineries and processing facilities and then to consumer areas and local distribution systems.

Establishment and Delineation of Transmission Risk Reduction Pipeline Overlay Zones

Boundaries for the Transmission Pipeline Risk Reduction Overlay District are shown on published maps entitled "Brookings County Transmission Pipeline Risk Reduction Zone Map" dated November, 2009, as produced by Brookings County Geographic Information Systems (GIS). This map will be updated as needed. Said map is hereby adopted by reference as part of this ordinance as if the map is fully described herein. The Transmission Pipeline Risk Reduction Overlay District will be a computerized mapping file maintained by the Brookings County Geographic Information Systems specialist. The Overlay District will be utilized by the Planning and Zoning Office for the purpose of issuing building permits, conditional use permits, variances and enforcement of the Brookings County Zoning Ordinance and Brookings County Subdivision Ordinance. The pipeline information will not be available online.

The mapping data was derived from the National Pipeline Mapping System (NPMS), a geographic information system (GIS) created by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS) in cooperation with other federal and state governmental agencies and the pipeline industry. Additional information was provided by local pipeline operator (s).

Consultation Zone

The purpose of the consultation zone is to identify the need for communication between property developers/owners within Brookings County and pipeline operators when new development is planned within 660' of an existing transmission pipeline. The Transmission Pipeline Risk Reduction Overlay District is designed to be a tool to identify where new development triggers the need for such consultation. The implementation of the consultation zone does not imply a previous lack of communication. The consultation zone dialogue will serve to: (1) protect pipelines by promoting adequate consideration of the potential safety impacts of the development on the transmission pipeline; and (2) raise awareness of the potential safety impacts of the pipeline on the development.

When a building permit is requested within the boundaries of the Transmission Pipeline Risk Reduction Overlay District, the person requesting a permit will be verbally informed that the building is being constructed near a transmission pipeline. A pipeline safety brochure will be provided along with the building permit. The permit office will notify the pipeline operator of the building permit request, the type and size of building. The property developer/owner is to initiate a consultation with the transmission pipeline operator as early as possible in the development planning process.

The consultation zone will be applied to the existing Northern Natural Gas Company pipeline, new transmission pipelines and any pipeline that requires a Conditional Use Permit (CUP) from the Brookings County Planning Commission. Transportation of gas from a methane digester to a manufacturing plant or transportation of natural gas to a power production plant are two examples of pipelines that require CUPs.

The consultation zone distance used in Brookings County is 660 feet for existing transmission pipelines. Future pipelines will be evaluated on a case by case basis to determine the potential impact radius (PIR). If the PIR is greater than 660', the PIR will be annotated on the findings of fact on the applicants CUP.

Planning Zone

The purpose of the planning zone is to enforce the requirement for communication between property developers/owners within Brookings County and transmission pipeline operators when new development is planned within the planning zone distance of; (1) an existing natural gas transmission pipeline; or (2) a distance to be determined based on the site-specific and pipeline specific characteristics for future liquid pipelines. The Planning Zone is a tool to identify where new development requires a physical response. The Planning Zone is a corridor in which certain land management practices may have potential benefits in protecting pipelines, mitigating the immediate consequences of a pipeline incident, and facilitating emergency response to a potential transmission pipeline incident.

When an individual or organization requests a building permit and the location is within the Planning Zone then the permit office staff will request a detailed site plan. A hand rendered drawing will suffice. The building permit requestor will be given a brochure with the point-of-contact for the appropriate gas company's personnel and the recommended land management practices for new development near existing transmission pipelines. They will also be notified to contact the South Dakota One Call to have the pipeline located and marked prior to the issuance of a building permit. The individual or organization requesting the building permit must confirm or correct the actual location of the pipeline on the site drawing.

If excavation will occur completely outside of the right-of-way, a building permit will be issued. The pipeline operator will be notified that a building permit has been issued and will be provided with the location of the construction by the permit office.

If the actual excavation will occur inside the right-of-way, the developer must obtain a written, signed encroachment agreement from the pipeline operator. The encroachment agreement must be submitted to the building permit issuing office before a building permit will be issued. The pipeline operator will be notified that a building permit has been issued and will be provided with the

location of the construction by the permit office. A copy of the encroachment agreement will be kept on file in the permit office.

Planning Zone: Natural Gas

Planning Zone Distance
The Planning Zone is determined on a case by case basis, depending upon the specific characteristics of the pipeline, such as the type of product, size of the pipe and Maximum Allowable Operating Pressure (MAOP):

In Brookings County the following distances will be utilized for existing pipelines;

> Northern Natural Gas Company gas transmission lines, the planning zone distance is defined as 117 feet on either side of the pipeline.
>
> Basin Electric gas transmission lines, the planning zone distance is defined as 262 feet on either side of the pipeline.

The Planning Zone distance for new facilities will be defined based on the potential impact radius (PIR) of the pipeline as these facilities are constructed.

Planning Zone: Liquid Pipelines

Currently Brookings County is not aware of any hazardous liquid pipelines within its boundaries. The following actions would occur if hazardous liquid pipelines would be located in Brookings County at any time.

Determining the appropriate Planning Zone distance for a hazardous liquid pipeline is potentially much more complex because of the varying flow characteristics of released liquids and the effect of the terrain surrounding the pipeline on the path of the release. Assembling the information and analysis needed to define the planning zone should be a collaborative effort by the pipeline operator and local government.

A planning distance for liquid pipelines may be defined based on a pipeline- and location-specific analysis considering the following three elements:

- *How much liquid might be spilled?*
- *Where would the spilled liquid go?*
- *What locations would be impacted?*

The fundamental factors to be considered in an analysis to establish the planning zone distance for liquid pipelines are listed below.

"How much liquid might be spilled?"

- Can be derived from pipeline flow rates, spill detection time, pipeline shutdown time, and drain down volume from various locations along the pipeline (this information can be obtained from the pipeline operator).

"Where would the spilled liquid go?"

- Overland flow:
    - Soil cover type / vegetation (flow resistance)
    - Soil absorption / permeability (seepage and retention)
    - Topography / contour / digital elevation model (direction of flow, speed of flow, retention areas and volumes)
    - Drainage systems such as culverts, streams, gullies, farm tiles, roadside ditches
    - Flow barriers such as railroad and road embankments, curbs, dikes, bulkheads
    - Fluid properties such as viscosity, density, vapor pressure
- Vapor cloud extent, if any – especially for highly volatile liquid pipelines
    - Heavier than air vapors settling in low spots
    - Vapor dispersion – dangerous for how far downwind?

"What locations would be impacted?"

- Thermal impact from fire
- Blast overpressure from explosion,
- Toxic, asphyxiation effects, etc.,
- Environmental effects from spill

Various models have been developed to support an analysis based on these elements. Each must consider a multitude of site-specific factors, which should be evaluated in their as-modified (i.e. post-development) condition. When using such models the model should be fit-for-purpose and the user should have expertise in hazard analysis. As noted, assembling the information and analysis needed to define the planning zone would be a collaborative effort by the pipeline operator and local government.

Severability

Should any article, section or provision of this ordinance be declared invalid, such decision shall not affect the validity of this ordinance as a whole or any other part thereof.

APPENDIX A

25-Year, 24-Hour Rainfall Map

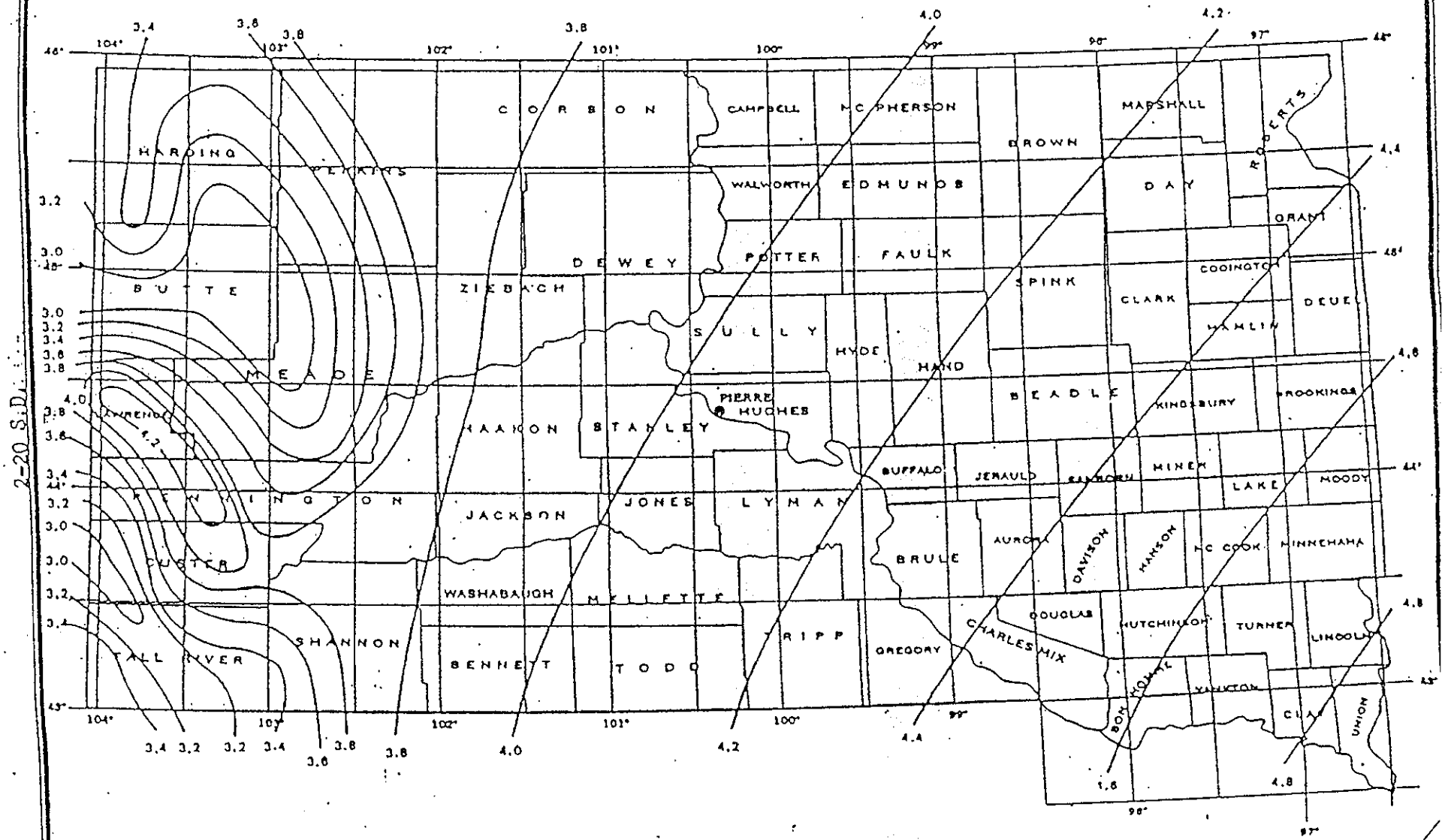
For South Dakota

SOUTH DAKOTA

U. S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

25-YEAR 24-HOUR RAINFALL (INCHES)



5,L-27,732-H(6)

APPENDIX 1

Natural Resource Conservation Service South Dakota
Engineering Standard, Waste Storage Ponds 425
Has been replaced by:

Natural Resource Conservation Service

Conservation Practice Standard

Waste Storage Facility (No.) Code 313

Current as of: October 2006

NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

WASTE STORAGE FACILITY

(No.)

CODE 313

DEFINITION

A waste storage impoundment made by constructing an embankment and/or excavating a pit or dugout, or by fabricating a structure.

PURPOSE

To temporarily store wastes such as manure, wastewater, and contaminated runoff as a storage function component of an agricultural waste management system (AWMS).

CONDITIONS WHERE PRACTICE APPLIES

Where the storage facility is a component of a planned AWMS.

Where temporary storage is needed for organic wastes generated by agricultural production or processing.

Where the storage facility can be constructed, operated, and maintained without polluting air or water resources.

Where site conditions are suitable for construction of the facility.

To facilities utilizing embankments with an effective height of 35 feet or less where damage resulting from failure would be limited to damage of farm buildings, agricultural land, or township and country roads.

To fabricated structures including tanks, stacking facilities, pond appurtenances, and roof structures.

This practice does not apply to storage of human domestic sewage or wastewater.

CRITERIA

General Criteria Applicable to All Waste Storage Facilities.

Laws and Regulations. Waste storage facilities must be planned, designed, and constructed to meet all federal, state, and local laws and regulations.

Where South Dakota Department of Environment and Natural Resources (SD DENR) approval is to be obtained, SD DENR requirements must be met.

South Dakota dam safety requirements shall be met for construction of facilities utilizing embankments.

Location. Waste storage facilities shall not be located within the 100-year frequency flood plain unless the structure is protected from inundation and damage that may occur during the 100-year frequency flood event.

Waste storage facilities or manure and wastewater disposal sites cannot be located closer than 1,000 feet from an existing public water well or drinking water source nor 250 feet from a well or drinking water source not owned by the producer.

Waste storage facilities or manure and wastewater disposal sites shall not be located closer than 150 feet from a water well or drinking water source that is owned by the producer.

Waste storage facilities shall be located so the potential impacts from breach of embankment, accidental release, and liner failure are minimized; and separation distances are such that prevailing winds and landscape elements such as building arrangement, landforms, and

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service **State Office**, or visit the **electronic Field Office Technical Guide**.

vegetation minimize odors and protect aesthetic values.

Storage Period. The storage period is the maximum length of time anticipated between emptying events. The minimum storage period shall be based on the timing required for environmentally safe waste utilization considering the climate, crops, soil, equipment, and local, state, and federal regulations.

Storage facilities that receive drainage from open lots must store at least 365 days of manure, wastewater, and contaminated runoff produced by the livestock operation. Storage facilities that do not receive drainage from open lots must store at least 270 days of manure and wastewater, except facilities emptied only once per year must store at least one-year of waste.

Design Storage Volume. Design storage volume shall consist of the total of the following as appropriate:

Residual volume after liquids have been removed. A minimum of 6 inches shall be provided for tanks and 12 inches for all facilities constructed of earthen materials;

Manure, wastewater, and other wastes accumulated during the storage period;

Normal runoff from the facility's drainage area during the storage period less evaporation calculated on the surface of the pond at the average active storage depth (depth midway between the top of the residual and the maximum operating level) during the storage period;

Average annual precipitation falling on the area inside the top of the structure embankment;

Waste storage facilities for animal feeding operations that commenced construction (or had significant expansion) after February 12, 2003, that require permitting through SD DENR, and that involve waste from swine, poultry or veal, must contain the 100-year frequency, 24-hour duration runoff without discharge. Storage capacity for the 100-year frequency, 24-hour duration storm precipitation on the surface area inside the tops of the containment dikes must also be contained for these systems;

For other waste storage facilities, include the 25-year frequency, 24-hour duration precipitation runoff (if the structure receives runoff from an open lot or other drainage area), and the depth of the 25-year frequency, 24-hour duration storm precipitation on the surface area inside the tops of the containment dikes; additional storage as may be required to meet management goals or regulatory requirements (including freeboard).

Note - Uncontaminated storm water runoff shall be diverted away from the facility wherever possible.

Freeboard. Design depth for waste storage facilities constructed of earthen materials must include at least two feet of freeboard, except one foot of freeboard may be used for small ponds that do not have significant contributing drainage areas and that will not need SD DENR review or approval.

Fabricated structure design depth must include at least six inches of freeboard.

Maximum Operating Level. The maximum operating level for waste storage facilities shall be the level that provides the volume required by the first four paragraphs under Design Storage Volume.

A permanent marker or recorder shall be installed at this maximum operating level to indicate when drawdown should begin. The marker or recorder shall be referenced and explained in the Operation and Maintenance (O&M) plan.

Active Storage Volume. The active storage volume is defined as the volume at maximum operating level minus residual volume (first paragraph under Design Storage Volume). Active storage depth is defined as the pond depth at maximum operating level minus the depth required for residual volume.

Volume Reduction by Evaporation. Waste Storage Facilities designed to emphasize significant reduction of liquid volume through evaporation must only contain contaminated liquid (not solids). Manure or other solid wastes must be stored in a separate waste

storage facility. A sediment basin or other solids removal method must be used to minimize entry of solids into the evaporation facility.

Dimensions of the evaporation facility will be determined by evaluating the expected annual runoff from the contributing area, the annual rainfall on the pond, and the expected annual evaporation calculated on the surface area at the average active storage depth (see the third paragraph under Design Storage Volume).

Active storage volume for evaporation designs must contain the average annual runoff and precipitation minus the mean annual shallow lake evaporation over a minimum period of five years. A minimum of one-foot of depth must be provided above the residual depth and below the maximum operating level.

The (Design Storage Volume) requirements to provide storage for large storm events above the maximum operating level and to provide freeboard also apply to facilities emphasizing evaporation.

Recommended Minimum Liquid Surface Area for Evaporation Facilities.

Average Annual Precipitation, inches	Ratio, pond bottom area / drainage area
<18"	0.12
18"-20"	0.15
20"-22"	0.18
22"-24"	0.22
24"-26"	0.30
>26"	0.33

The O&M plan for each evaporation facility shall include specific language to explain that pumping (partial emptying) will be necessary to maintain required storage capacity during periods of wet climatic conditions. The O&M Plan should also address maintaining the moisture content of the bottom and inner side slopes of the facility during drought to reduce cracking and future seepage losses.

Inlet. Inlets shall be of any permanent type designed to resist corrosion, plugging, freeze damage, and ultraviolet ray deterioration while incorporating erosion protection as necessary.

For inlets carrying solids, the inlet should be designed to deposit waste near the center of the side of the waste storage facility. Minimum pipe diameter shall be 10 inches except as recommended by equipment manufacturers. The preferred pipe slope for gravity flow is one percent. Flatter slopes may be used where provisions are made to clear blockages.

Emptying Component. Some type of component shall be provided for emptying storage facilities. It may be a facility such as a gate, pipe, dock, wet well, pumping platform, retaining wall, or ramp. Features to protect against erosion, tampering, and accidental release shall be incorporated as necessary.

Accumulated Solids Removal. Provision shall be made for periodic removal of accumulated solids to preserve storage capacity. The anticipated method for doing this must be considered in planning, particularly in determining the configuration of ponds and type of seal, if any.

Safety. Design shall include appropriate safety features to minimize the hazards of the facility. Ramps used to empty liquids shall have a slope of four horizontal to one vertical or flatter. Those used to empty slurry, semi-solid, or solid waste shall have a slope of 10 horizontal to 1 vertical or flatter unless special traction surfaces are provided.

Warning signs, fences, ladders, ropes, bars, rails, and other devices shall be provided, as appropriate, to ensure the safety of humans and livestock. Ventilation and warning signs must be provided for covered waste holding structures, as necessary, to prevent explosion, poisoning, or asphyxiation. Pipelines shall be provided with a water-sealed trap and vent, or similar device, if there is a potential, based on design configuration, for gases to enter buildings or other confined spaces. Gravity discharge pipes used for emptying a storage/treatment facility shall have a minimum of two gates or valves, one of which shall be manually operated.

Ponds and uncovered fabricated structures for liquid or slurry waste with walls less than five

feet above ground surface shall be fenced and warning signs posted to prevent children and others from using them for other than their intended purpose.

Erosion Protection. Embankments and disturbed areas surrounding the facility shall be seeded or otherwise treated to control erosion.

Clay Liners. Clay liners must be at least 18 inches thick and compacted to at least 95 percent of standard maximum dry unit weight, and at water content within 2 percent of optimum as determined by ASTM D698. Where SD DENR approval will be obtained, the compacted clay liner must meet SD regulatory requirements.

Flexible Membranes. Flexible membranes must be designed to be waterproof (including seams) and must be designed for permanent exposure to ag waste, soils, and sunlight. Flexible membranes must meet the minimum requirements contained in the NRCS Practice Standard Pond Sealing or Lining – Flexible Membrane (521A). Thicker membranes may be required by state or local government regulatory agencies.

Livestock Access. Livestock shall be prohibited access to the interior of waste storage facilities, with the exception of the interior of roofed structures that are used to provide a portion of the required waste storage capacity.

Waste Stockpiling Outside Feedlots. Stockpiling sites must follow requirements of SD DENR General Water Pollution Control Permit for Concentrated Animal Feeding Operations.

Groundwater Monitoring. Where waste storage facilities are located over shallow aquifers or where discharge to groundwater may occur, regularly sampled groundwater monitoring wells or a Groundwater Discharge Permit may be required. For each affected site, these requirements will be as specified by the SD DENR.

Additional Criteria for Waste Storage Ponds

Soil and foundation. The pond shall be located in soils with an acceptable permeability that meets all applicable regulation, or the pond shall be lined. Information and guidance on controlling seepage from waste impoundments can be found in the Agricultural Waste Management Field Handbook (AWMFH), Appendix 10D.

The pond shall have a bottom elevation that is a minimum of two feet above the seasonal high water table unless features of special design are incorporated that address buoyant forces, pond seepage rate, and non-encroachment of the water table by contaminants. The water table may be lowered by use of perimeter drains, if feasible, to meet this requirement.

An onsite soils investigation shall be conducted in sufficient detail to determine:

The soil type(s), based on the Unified Soil Classification System;

The need for and extent of seepage control measures required;

Embankment and liner design parameters;

The location of the seasonal high water table, when one is present;

That SD DENR requirements have been met (where applicable);

Soils information must be obtained to a minimum depth of two feet below the bottom of the proposed storage facility.

Outlet. No outlet shall automatically release storage from the required design volume. Manually operated outlets shall be of permanent type designed to resist corrosion and plugging.

Embankments. The minimum elevation of the top of the settled embankment shall be one foot above the waste storage pond's required volume. Required fill height shall be increased by the amount needed to ensure that the top elevation will be maintained after settlement.

Where required compaction is less than 95 percent of ASTM D698 standard maximum dry unit weight, the fill height increase for settlement shall not be less than five percent. Minimum freeboard for facilities permitted by SD DENR must meet state regulations.

Earth embankment slopes must be designed to be stable and must be three horizontal to one vertical or flatter.

The minimum top widths are shown in Table 1.

Table 1 – Minimum Top Widths

Total Embankment Height at Centerline, ft feet	Top Width,
19.9 or less	10
20–24.9	12
25–29.9	14
30–35	15

Note - SD DENR may require other top widths.

Excavations. Unless supported by a soil investigation, excavated side slopes shall be no steeper than two horizontal to one vertical.

Wind and Wave Protection. Erosion protection shall be provided for earthen waste storage facilities having a five-acre or larger liquid surface at maximum operating level.

Additional Embankment Criteria for Storage Ponds Receiving Runoff from Contributing Drainage Areas.

Additional embankment overtopping protection must be provided for embankment storage ponds that receive runoff from contributing drainage areas. Overtopping protection may take the form of embankment armoring, additional storage capacity or an auxiliary spillway.

Where designs include auxiliary spillways, the crest of the auxiliary spillway must be at least one foot above design storage elevation, and settled embankment top elevation must be at least 1 foot above the water surface during passage of runoff from the 25-year frequency, 24-hour duration storm occurring when the design volume is filled. The auxiliary spillway may be a channel, chute structure, drop structure, or overflow pipe. Earthen channel auxiliary spillways must have four foot minimum bottom width. Chute and drop structure spillways must have four foot minimum weir width. Overflow pipes must have six inch minimum nominal diameter. Auxiliary spillway outflows must not be directed onto property not owned by the owner/operator, within 250 feet of the structure.

All embankment storage ponds without an auxiliary spillway must have settled embankment top elevation a minimum of one foot above design storage volume, and must not be overtopped by the runoff from a 25-year frequency, 24-hour duration storm occurring when the design storage volume is filled.

Minimum freeboard for facilities permitted by SD DENR must also meet state regulations.

Additional Criteria for Roofed Animal Production Facilities Utilized to Minimize Contaminated Runoff

When a roof structure is used to eliminate contaminated runoff, the structure shall be designed to prevent manure under the roof from becoming a pollution problem. Roofs shall be designed for the snow and wind loads found in the local building code.

Building Structural Requirements. All foundation or structural components will meet the requirements contained in this standard under "Criteria for Fabricated Structures."

The design and construction of the roof structure shall be approved and sealed by a professional engineer licensed to practice engineering in the state of SD.

Design Storage Volume. It is recognized that the floor area of these facilities will provide some portion of the overall waste storage capacity. The minimum required capacity for process generated wastes associated with this type facility will be 270 days. Storage capacity for manure and bedding shall be provided within the roofed structure and/or other storage facilities that will meet all minimum requirements of this standard. Storage facilities that are exposed to direct precipitation will meet all minimum requirements for storage capacity defined elsewhere in this standard for waste storage ponds.

Roofed Structure Floor Requirements. For floor slabs constructed with concrete, the minimum thickness of the slab on uniform foundations shall be five inches and shall contain distributed reinforcing steel.

In order to control seepage, the concrete slab shall be constructed with water stops in all construction joints or placed over a twelve inch

thick compacted clay lining designed according to procedures in the AWMFH, Chapter 10, Appendix 10D. A minimum four-inch thick layer of sand and gravel shall be utilized above the clay lining to minimize the potential for cracking of the concrete due to moisture or frost heaving.

Flexible impermeable membranes may be utilized in place of the compacted clay lining beneath a concrete floor. Flexible membranes must meet the minimum requirements contained in the NRCS Practice Standard Pond Sealing or Lining – Flexible Membrane (521A). A minimum 16-inch thick layer consisting of a 12-inch thick layer of earthen materials placed above the membrane and 4 inches of sand and gravel immediately below the concrete shall be utilized for protection of the membrane during concrete placement.

For roof structure floors constructed of earthen materials, an18-inch thick compacted clay lining designed according to procedures in the AWMFH, Chapter 10, Appendix 10D, will be utilized to control seepage from the floor used as a waste storage area. A 12-inch thick layer of compacted earthen material over a flexible membrane may also be used. Provisions for maintaining the integrity of the clay lining or impermeable membrane will be included in the O&M plan for the facility.

Nutrient Management. A Comprehensive Nutrient Management Plan which will meet the Conservation Practice Standard Nutrient Management (590) will be developed and implemented as a part of the roofed structure system of components for waste storage.

Additional Criteria for Fabricated Structures

Foundation. The foundations of fabricated waste storage structures shall be proportioned to safely support all superimposed loads without excessive movement or settlement.

Where a non-uniform foundation cannot be avoided or applied loads may create highly variable foundation loads; settlement should be calculated from site-specific soil test data. Index tests of site soil may allow correlation with similar soils for which test data is available. If no test data is available, presumptive bearing strength values for assessing actual bearing pressures may be obtained from Table 2 or another nationally recognized building code. In using presumptive bearing values, adequate detailing and articulation shall be provided to avoid distressing movements in the structure.

Foundations consisting of bedrock with joints, fractures, or solution channels shall be treated or a separation distance provided consisting of a minimum of one foot of impermeable soil between the floor slab and the bedrock or an alternative that will achieve equal protection.

Table 2 - Presumptive Allowable Bearing Stress Values[1]/

Foundation Description	Allowable Stress
Crystalline Bedrock	12000 psf
Sedimentary Rock	6000 psf
Sandy Gravel or Gravel	5000 psf
Sand, Silty Sand, Clayey Sand, Silty Gravel, Clayey Gravel	3000 psf
Clay, Sandy Clay, Silty Clay, Clayey Silt	2000 psf

[1/] Basic Building Code, 12th Edition, 1993, Building Officials and Code Administrators, Inc. (BOCA)

Liquid Tightness. Applications such as tanks that require liquid tightness shall be designed and constructed in accordance with standard engineering and industry practices to achieve liquid tightness.

Structural Loadings. Waste storage structures shall be designed to withstand all anticipated loads including internal and external loads, hydrostatic uplift pressure, concentrated surface and impact loads, water pressure due to seasonal high water table, and frost or ice pressure and load combinations in compliance with this standard and applicable local building codes.

Lateral earth pressures should be calculated from soil strength values determined from the results of appropriate soil tests. Lateral earth pressures can be calculated using the procedures in Natural Resources Conservation Service Technical Release 74, Lateral Earth Pressures, (TR-74). If soil strength tests are not available, the presumptive lateral earth

pressure values indicated in Table 3 shall be used.

Lateral earth pressures based upon equivalent fluid assumptions shall meet the following:

Rigid frame or restrained wall. Use the values shown in Table 3 under the column "Frame tanks," which gives pressures comparable to the at-rest condition.

Flexible or yielding wall. Use the values shown in Table 3 under the column "Free-standing walls," which gives pressures comparable to the active condition. Walls in this category are designed on the basis of gravity for stability or are designed as a cantilever having a base wall thickness to height of backfill ratio not more than 0.085.

Equivalent fluid pressures lower than 60 lbs./ft.^{2}/ft. depth, are appropriate for design only where excellent drainage is provided for backfill.

Internal lateral pressure used for design shall be 65 lb/ft^2 where the stored waste is not protected from precipitation. A value of 60 lb/ft^2 may be used where the stored waste is protected from precipitation and will not become saturated. Lesser values may be used if supported by measurement of actual pressures of the waste to be stored. If heavy equipment will be operated near the wall, an additional two feet of soil surcharge shall be considered in the wall analysis.

Tank covers shall be designed to withstand both dead and live loads. The live load values for covers contained in ASAE EP378.3, Floor and Suspended Loads on Agricultural Structures Due to Use, and in ASAE EP 393.2, Manure Storages, shall be the minimum used. The actual axle load for tank wagons having more than a 2,000 gallon capacity shall be used.

If the facility is to have a roof, snow, and wind loads shall be as specified in ASAE EP288.5, Agricultural Building Snow and Wind Loads. If the facility is to serve as part of a foundation or support for a building, the total load shall be considered in the structural design.

Structural Design. The structural design shall consider all items that will influence the performance of the structure, including loading assumptions, material properties, and construction quality. Design assumptions and construction requirements shall be indicated on standard plans.

Tanks may be designed with or without covers. Covers, beams, or braces that are integral to structural performance must be indicated on the construction drawings. The openings in covered tanks shall be designed to accommodate equipment for loading, agitating, and emptying. These openings shall be equipped with grills or secure covers for safety, and for odor and vector control.

All structures shall be underlain by free draining material or shall have a footing located below the anticipated frost depth.

A single layer of steel placed near the center of the slab or wall may be used for members that are not more than eight inches thick.

Trusses delivered to job site shall be accompanied with a certification stamped by a professional engineer showing that the truss design conforms to this standard for the building dimension shown on the drawings.

Fabricated structures shall be designed according to the criteria in the following references as appropriate:

Steel: "Manual of Steel Construction," American Institute of Steel Construction.

Timber: "National Design Specifications for Wood Construction," American Forest and Paper Association.

Concrete: "Building Code Requirements for Reinforced Concrete, ACI 318," American Concrete Institute.

Masonry: "Building Code Requirements for Masonry Structures, ACI 530," American Concrete Institute.

Midwest Plan Service (MWPS-36) Concrete Manure Storage Handbook available from the Extension Service.

Slabs on Grade. Slab design shall consider required performance and the critical applied loads along with both the subgrade material and material resistance of the concrete slab. Where applied point loads are minimal and

liquid-tightness is not required and the subgrade is uniform and dense, the minimum slab thickness shall be 4 inches with a maximum joint spacing of 10 feet. Joint spacing can be increased if steel reinforcing is added based on subgrade drag theory.

For applications where liquid-tightness is required such as floor slabs of storage tanks, the minimum thickness for uniform foundations shall be five inches and shall contain distributed reinforcing steel. The required area of such reinforcing steel shall be based on subgrade drag theory as discussed in industry guidelines such as American Concrete Institute, ACI 360, "Design of Slabs-on-Grade."

When heavy equipment loads are to be resisted and/or where a non-uniform foundation cannot be avoided, an appropriate design procedure incorporating a subgrade resistance parameter(s) such as ACI 360 shall be used.

Table 3 - Lateral earth pressure values[1/]

		Equivalent fluid pressure (lb/ft2/ft of depth)			
Soil		Above seasonal high water table[2]		Below seasonal high water table[3]	
Description[4/]	Unified Classification[4/]	Free-standing walls	Frame tanks	Free-standing walls	Frame tanks
Clean gravel, sand or sand-gravel mixtures (maximum 5% fines)[5/]	GP, GW, SP, SW	30	50	80	90
Gravel, sand, silt and clay mixtures (less than 50% fines) Coarse sands with silt and and/or clay (less than 50% fines)	All gravel sand dual symbol classifications and GM, GC, SC, SM, SC-SM	35	60	80	100
Low-plasticity silts and clays with some sand and/or gravel (50% or more fines) Fine sands with silt and/or clay (less than 50% fines)	CL, ML, CL-ML SC, SM, SC-SM	45	75	90	105
Low to medium plasticity silts and clays with little sand and/or gravel (50% or more fines)	CL, ML, CL-ML	65	85	95	110
High plasticity silts and clays (liquid limit more than 50)[6/]	CH, MH	-	-	-	-

[1/] For lightly-compacted soils (85 percent to 90 percent maximum standard density.) Includes compaction by use of typical farm equipment.
[2/] Also below seasonal high water table if adequate drainage is provided.
[3/] Includes hydrostatic pressure.
[4/] All definitions and procedures in accordance with ASTM D 2488 and D 653.
[5/] Generally, only washed materials are in this category
[6/] Not recommended. Requires special design if used.

CONSIDERATIONS

Waste storage facilities should be located as close to the source of waste and polluted runoff as practicable.

Non-polluted runoff should be excluded from the structure to the fullest extent possible except where its storage is advantageous to the operation of the agricultural waste management system.

Solid/liquid separation of runoff or wastewater entering pond facilities should be considered to minimize the frequency of accumulated solids removal and to facilitate pumping and application of the stored waste.

Due consideration should be given to environmental concerns, economics, the overall waste management system plan, and safety and health factors.

Considerations for Minimizing the Potential for and Impacts of Sudden Breach of Embankment or Accidental Release from the Required Volume.

Features, safeguards, and/or management measures to minimize the risk of failure or accidental release, or to minimize or mitigate impact of this type of failure should be considered when any of the categories listed in "Potential Impact Categories from Breach of Embankment or Accidental Release" might be significantly affected.

The following should be considered either singly or in combination to minimize the potential of, or the consequences of, sudden breach of embankments when one or more of the potential impact categories listed under "Potential Impact Categories from Breach of Embankment or Accidental Release" may be significantly affected:

An auxiliary (emergency) spillway;

Additional freeboard;

Storage for wet year rather than normal year precipitation;

Reinforced embankment -- such as, additional top width, flattened, and/or armored downstream side slopes;

Protection of exterior embankment slopes which may be exposed to erosive flow conditions when located on or near floodplains.

Secondary Containment.

The following options should be considered to minimize the potential for accidental release from the required volume through gravity outlets when one or more of the potential impact categories listed in the "Potential Impact Categories from Breach of Embankment or Accidental Release" may be significantly affected:

Outlet gate locks or locked gate housing;

Secondary containment;

Alarm system;

Another means to empty the required volume.

Potential Impact Categories from Breach of Embankment or Accidental Release

Surface water bodies -- perennial streams, lakes, wetlands, and estuaries.

Critical habitat for threatened and endangered species.

Riparian areas.

Farmstead, or other areas of habitation.

Off farm property.

Historical and/or archaeological sites or structures that meet the eligibility criteria for listing in the National Register of Historical Places.

Considerations for Minimizing the Potential of Waste Storage Pond Liner Failure

Sites with categories listed under "Potential Impact Categories for Liner Failure" should be avoided if possible. If avoidance is not possible, give consideration to providing an additional measure of safety from seepage.

Should any of the potential impact categories listed in "Potential Impact Categories for Liner Failure" be affected, consideration should be given to the following:

A clay liner designed in accordance with procedures in AWMFH, Chapter 10, Appendix 10D;

A flexible membrane liner over a clay liner;

A geosynthetic clay liner flexible membrane liner;

A concrete liner designed in accordance with slabs on grade criteria for fabricated structures requiring water tightness.

Potential Impact Categories for Liner Failure

Any underlying aquifer is at a shallow depth and not confined.

The vadose zone is rock.

The aquifer is a domestic water supply or ecologically vital water supply.

The site is located in an area of solutionized bedrock such as limestone or gypsum.

Considerations for Improving Air Quality

To reduce emissions of greenhouse gases, ammonia, volatile organic compounds, and odor, other practices such as Anaerobic Digester, Ambient Temperature (365); Anaerobic Digester, Controlled Temperature (366); Waste Facility Cover (367); and Composting Facility (317) can be added to the waste management system.

Adjusting pH below seven may reduce ammonia emissions from the waste storage facility but may increase odor when waste is surface applied (see Waste Utilization, (633)).

Some fabric and organic covers have been shown to be effective in reducing odors.

PLANS AND SPECIFICATIONS

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its purpose.

OPERATION AND MAINTENANCE

An O&M plan shall be developed that is consistent with the purposes of the practice, its design life, safety requirements, and design criteria.

The plan shall contain the operational requirements for emptying the storage facility. This shall include the requirement that waste shall be removed from storage and utilized at locations, times, rates, and volume in accordance with the overall waste management system plan. Include an explanation of permanent markers or recorders installed to indicate maximum operating level.

Include a strategy for removal and disposition of waste with least environmental damage during the normal storage period to the extent necessary to insure the pond's safe operation. This strategy includes removal of the contribution of unusual storm events that may cause the pond to fill to capacity prematurely with subsequent inflow prior to the end of the normal storage period.

Development of an emergency action plan should be considered for waste storage facilities where there is a potential for significant impact from breach or accidental release. Include site-specific provisions for emergency actions that will minimize these impacts.

Where evaporation facilities are included, the O&M plan shall include specific language to explain that pumping (partial emptying) will be necessary to maintain required storage capacity during very wet weather. The O&M plan should also address maintaining the moisture content of the bottom and inner side slopes of the facility during drought to reduce cracking and future seepage losses.

REFERENCES

ASAE. 1991. EP 393.2 - Manure Storages, ASAE. 1992. EP470 - Manure Storage Safety. ASAE. St. Joseph, MI

Midwest Plan Service. 1993. Livestock Waste Facilities Handbook, 3rd Ed. (MWPS-18), Midwest Plan Service. 1994. Concrete Manure Storages Handbook. (MWPS-36), Department of Agricultural and Biosystems Engineering, Iowa State University, Ames, IA.

Agricultural Waste Management Field Handbook. 1992. USDA - NRCS, Washington, D.C.

South Dakota Department of Environment and Natural Resources references.

Animal Waste Management to Protect Water Quality (EC-895), South Dakota Cooperative Extension Service.

Technical Reports 33 and 34, National Oceanic and Atmospheric Administration (NOAA).

APPENDIX 2

Not used at this time.

APPENDIX 3

EPA SARA Title III
Extremely Hazards List
Is on file at the Brookings
County Emergency
Management and Zoning
Offices

ADDENDUM 1

Right-To-Farm Covenant

Prepared by Brookings County Zoning Office
601 4th Street #105
Brookings, SD 57006

RIGHT TO FARM NOTICE COVENANT

You are hereby notified that the property you are constructing a new residence, stick-built, modular or manufactured, or modifying an existing residence, described in the Legal Description below, that is in or near agricultural land, agricultural operations or agricultural processing facilities or operations. You may be subject to inconvenience or discomfort from lawful agricultural or agricultural processing facility operations. Agricultural operations may include, but are not limited to, the following: the cultivation, harvesting, and storage of crops; livestock production; ground rig or aerial application of pesticides or herbicides; the application of fertilizer, including animal waste; the operation of machinery; the application of irrigation water; and other accepted and customary agricultural activities conducted in accordance with Federal, State, and County laws. Discomforts and inconveniences may include, but are not limited to: noise, odors, fumes, dust, smoke, burning, vibrations, insects, rodents, and/or the operation of machinery (including aircraft) during and 24-hour period. If you live near an agricultural area, you should be prepared to accept such inconveniences or discomforts as a normal and necessary aspect of living in an area with a strong rural character and an active agricultural sector. You are also notified that there is the potential for agricultural or agricultural processing operations to expand. This notification shall extend to all landowners, their heirs and successors or assigns.

Legal Description:_____
_____
_____

IN WITNESS WHEREOF, the Grantors have executed this easement on _____, 20____.

_____ _____
Signature, Grantor Signature, Grantor

STATE OF SOUTH DAKOTA
SS:
COUNTY OF BROOKINGS

This instrument was acknowledged before me on _____, 2006 by

_____ (Grantors).

_____Notary Public

My Commission Expires: _____

ORDINANCE # 2007-03

AN ORDINANCE PROVIDING FOR THE AMENDMENT OF THE 1997 REVISED ZONING ORDINANCE

WHEREAS, BROOKINGS COUNTY has previously adopted the 1997 Revised Zoning Ordinance; and

WHEREAS, the Brookings County, South Dakota, Board of County Commissioners deems it necessary, for the purpose of promoting the health, safety, and the general welfare of the County, to amend the 1997 Revised Zoning Ordinance.

THEREFORE, BE IT ORDAINED BY BROOKINGS COUNTY, SOUTH DAKOTA, that the 1997 Revised Zoning Ordinance of Brookings County be amended as follows:

SECTION A. That Article I, Short Title and Application, be renamed Article 1.00, Short Title and Application.

SECTION B. That Article II, Definitions, be renamed Article 2.00, Definitions.

SECTION C. That Article III, Establishment of Districts, be renamed Article 3.00, Establishment of Districts.

SECTION D. That Article IV, Non-conforming Uses or Lots of Record, be renamed Article 4.00, Non-conforming Uses or Lots of Record.

SECTION E. That Article V, County Zoning Commission, Appeals, Variance and Conditional Uses, be renamed Article 5.00, County Zoning Commission, Appeals, Variance and Conditional Uses.

SECTION F. That Article VI, Duties of County Zoning Officer, Board of County Commissioners, and Courts on Matters of Appeal, be renamed Article 6.00, Duties of County Zoning Officer, Board of County Commissioners, and Courts on Matters of Appeal.

SECTION G. That Article VII, Schedule of Fees, Charges and Expenses, be renamed Article 7.00, Enforcement.

SECTION H. That Article VIII, Enforcement, be renamed Article 8.00, Schedule of Fees, Charges and Expenses.

SECTION I. That Article IX, Amendments, be renamed Article 9.00, Legal Status Provisions.

SECTION J. That Article X, Legal Status Provisions, be renamed Article 10.00, Amendments.

SECTION K. That Article XI, Zoning Districts/Agricultural, be renamed Article 11.00, Agricultural Districts.

SECTION L. That Article XI, Zoning Districts/Commercial/Industrial, be renamed Article 12.00, Commercial/Industrial Districts.

SECTION M. That Article XI, Zoning Districts/Lake Park, be renamed Article 13.00, Lake Park Districts.

SECTION N. That Article XI, Zoning Districts/Natural Resource, be renamed Article 14.00, Natural Resource Districts.

SECTION O. That Article XI, Zoning Districts/Flood Damage Prevention, be renamed Article 15.00, Flood Damage Prevention.

SECTION P. That Article XI, Zoning Districts/Aquifer Protection, be renamed Article 16.00, Aquifer Protection.

SECTION Q. That Article XII, General Requirements/Screening, Vision Clearance on Corner Lots, Refuse, Unlicensed Vehicles, Moved in Buildings and Minimum Water and Sewer Requirements, be renamed Article 17.00, General Requirements.

SECTION R. That Article XII, General Requirements/ Minimum Mobile/Manufactured Home Requirements, be renamed Article 18.00, Minimum Mobile/Manufactured Home Requirements.

SECTION S. That Article XII, General Requirements/ Shelterbelt Setback Requirements, be renamed Article 19.00, Shelterbelt Setback Requirements.

SECTION T. That Article XII, General Requirements/Home Occupations, be renamed Article 20.00, Home Occupations.

SECTION U. That Article XII, General Requirements/Extended Home Occupations, be renamed Article 21.00, Extended Home Occupations.

SECTION V. That Article XII, General Requirements/Concentrated Animal Feeding Operation, be renamed Section 22.00, Concentrated Animal Feeding Operation.

SECTION W. That Article XII, General Requirements/Wind Energy System (WES) Requirements, be renamed Article 23.00, Wind Energy System (WES) Requirements.

SECTION X. In all respects the 1997 Revised Zoning Ordinance shall remain unchanged and is hereby re-ordained.

FIRST READING: November 20, 2007

SECOND READING: November 27, 2007

Chairperson, Brookings County
Board of County Commissioners

ATTEST:

Brookings County Auditor